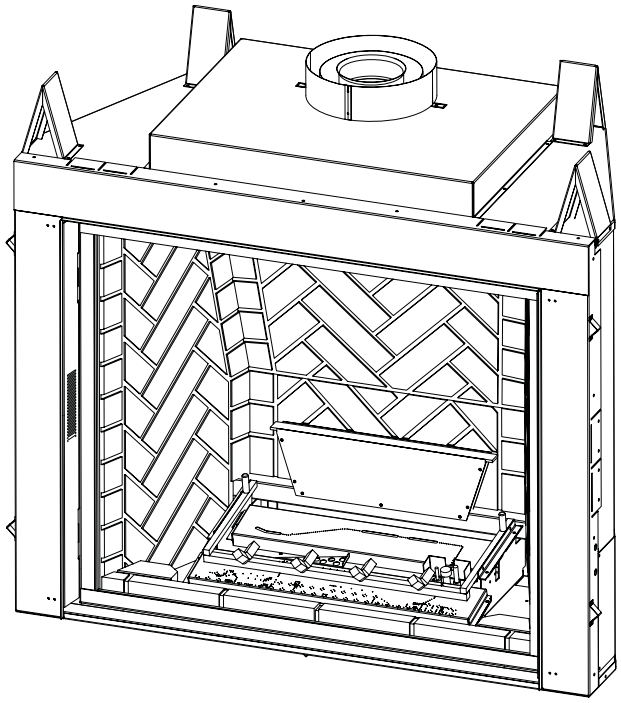
MONESSEN

KHLDV SERIES
DIRECT VENT GAS FIREPLACE

INSTALLATION AND OPERATING INSTRUCTIONS

MODELS: KHLDV400 & KHLDV500



WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

- **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**
- **WHAT TO DO IF YOU SMELL GAS**
  - **Do not try to light any appliance.**
  - **Do not touch any electrical switch; do not use any phone in your building.**
  - **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
  - **If you cannot reach your gas supplier, call the fire department.**
- **Installation and service must be performed by a qualified installer, service agency or the gas supplier.**

WARNING: Improper installation, adjustment, alteration, services or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

This appliance may be installed in an aftermarket*, permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.
This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

*** Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.**

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.

YOUNG CHILDREN SHOULD BE SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.

KEEP THE ROOM AREA CLEAR AND FREE FROM COMBUSTIBLE MATERIALS, GASOLINE, AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

READ BEFORE INSTALLING. SAVE THESE INSTRUCTIONS

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Mass Residents Only 46

Warranty .....Back Cover

INSTALLER

Please leave these instructions with the appliance.

OWNER

Please retain these instructions for future reference.

WARNING

- **Read this owner's manual carefully and completely before trying to assemble, operate, or service this fireplace.**
- **Any change to this fireplace or its controls can be dangerous.**
- **Improper installation or use of this fireplace can cause serious injury or death from fire, burns, explosions, electrical shock and carbon monoxide poisoning.**

This fireplace is a vented product. This fireplace must be properly installed by a qualified service person. The glass door must be properly seated and sealed. If this unit is not properly installed by a qualified service person with glass door properly seated and sealed, combustion leakage can occur.

CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, the fireplace may not have been installed properly. Get fresh air at once! Have the fireplace inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.
2. For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
3. If you smell gas
   - shut off gas supply.
   - do not try to light any appliance.
   - do not touch any electrical switch; do not use any phone in your building .
   - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
4. Never install the fireplace
   - in a recreational vehicle
   - where curtains, furniture, clothing, or other flammable objects are less than 42" from the front, top, or sides of the fireplace
   - in high traffic areas
   - in windy or drafty areas
5. This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
6. Carefully supervise young children when they are in the room with fireplace.
7. Do not modify fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.
8. Turn fireplace off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair the fireplace. Have burner system inspected annually by a qualified service person.
9. You must keep control compartments, burners, and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust. Turn off the gas valve and pilot light before cleaning fireplace.
10. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. See *Cleaning and Maintenance*, page 35.
11. Keep the area around your fireplace clear of combustible materials, gasoline, and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.

Continued on page 4

Continued from page 3

12. Do not use this fireplace to cook food or burn paper or other objects.
13. Never place anything on top of fireplace.
14. Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on rating plate.
15. This appliance, when installed, must be electrically grounded in accordance with local codes or in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1.*
16. Do not obstruct the flow of combustion and ventilation air in any way. Provide adequate clearances around air openings into the combustion chamber along with adequate accessibility clearance for servicing and proper operation.
17. When the appliance is installed directly on carpeting, tile or other combustible material other than wood flooring, you must set appliance on a metal or wood panel or hearth pad extending the full width and depth of the appliance.
18. Do not use fireplace if any part has been exposed to or has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control which as been submerged in water.
19. Do not operate fireplace if any log is broken.
20. Do not use a blower insert, heat exchanger insert, or any other accessory not approved for use with this fireplace.
21. Do not operate the fireplace with glass door removed, cracked, or broken.

IMPORTANT:
PLEASE READ THE FOLLOWING CAREFULLY

It is normal for fireplaces fabricated of steel to give off some expansion and/or contraction noises during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine.

IMPORTANT:
PLEASE READ THE FOLLOWING CAREFULLY

It is not unusual for gas fireplaces to give off some odor the first time it is burned. This is due to the manufacturing process.

Please ensure that your room is well ventilated during burn off — open all windows.

It is recommended that you burn your fireplace for at least ten (10) hours the first time you use it. Place the fan switch in the “OFF” position during this time.

WARNING

Never connect unit to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

NATIONAL FIREPLACE INSTITUTE NFI ADVOCATE
www.nficertified.org

We suggest that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as Gas Specialists.

PRODUCT SPECIFICATIONS

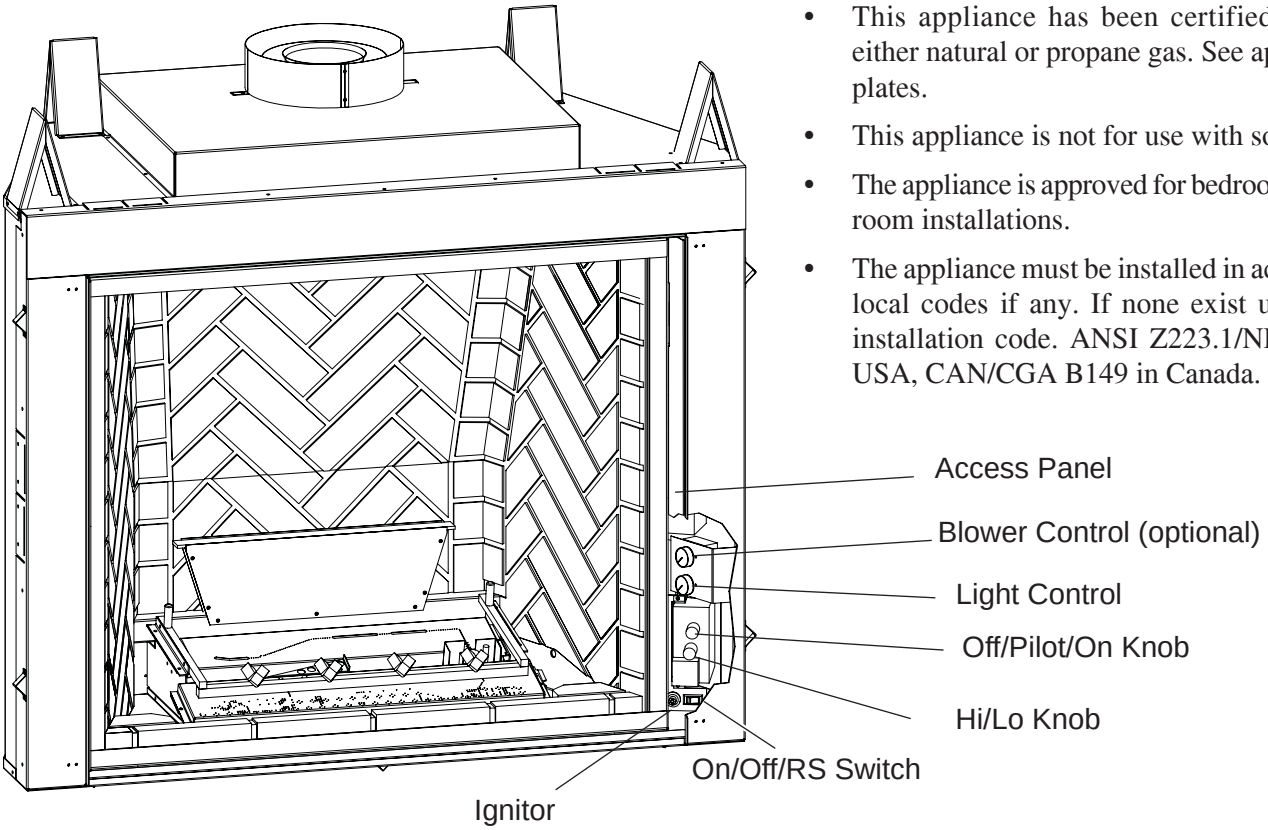


Figure 1 - KHLDV Series Fireplace

- This appliance has been certified for use with either natural or propane gas. See appropriate data plates.
- This appliance is not for use with solid fuels.
- The appliance is approved for bedroom or bedsitting room installations.
- The appliance must be installed in accordance with local codes if any. If none exist use the current installation code. ANSI Z223.1/NFPA 54 in the USA, CAN/CGA B149 in Canada.
- This appliance is mobile home approved.
- The appliance must be properly connected to a venting system.
- The appliance is not approved for closet or recessed installations.

The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

Thermal Efficiency = up to 72%

CODE APPROVAL

Direct Vent type appliances draw all combustion air from outside of the dwelling through the vent pipe.

These appliances have been tested by CSA and found to comply with the established standards for DIRECT VENT GAS FIREPLACE HEATERS in the USA and Canada as follows:

LISTED VENTED GAS FIREPLACE HEATER

TESTED TO: ANSI Z21.88-2005/CSA 2.33-2005 STANDARDS

A manufactured home (USA only) or mobile home OEM installation must conform with the ***Manufactured Home Construction and Safety Standard,*** **Title 24 CFR, Part 3280,** or when such a standard is not applicable, the **Standard for Manufactured Home Installations, ANSI/NCSBCS A225.1**, or **Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4**.

PRE-INSTALLATION INFORMATION

INSTALLING ABOVE 2000 FEET

- In the USA, the appliance must be derated 4% for every 1,000 ft above 2,000 ft elevations. Where the heating value of the gas has been reduced, these rules do not apply.
- In Canada, these appliances are certified for altitudes of 0 – 2000 ft, and must be de-rated by 10 percent for installations between 2000 and 4,500 ft. (derate an additional 4% for every 1,000 ft. above 4,500 ft. elevations).

ORIFICE SIZES, PRESSURES AND BTUs

NATURAL GAS

Manifold Press: (W.C.)	3.5"
Maximum Supply Pressure	10.5"
Minimum Supply Pressure	4.5"

PROPANE GAS

Manifold Press: (W.C.)	10"
Maximum Supply Pressure	13"
Minimum Supply Pressure	11"

Model Number	KHLDV400		KHLDV500	
Gas Type	Natural	Propane	Natural	Propane
Max. Btu/hr Input	40,000	40,000	50,000	50,000
Min. Btu/hr Input	28,500	30,500	35,500	38,500
Rear Orifice Size	#35 (.110")	#52 (.0635")	#30 (.1285")	#50 (.070")
Front Orifice Size	#49 (.073")	#56 (.0465")	2.3 mm	#55 (.052")

BEFORE YOU START

Read this homeowner manual thoroughly and follow all instructions carefully. Inspect all contents for shipping damage and immediately inform your dealer if any damage is found. Do not install any unit with damaged, incomplete, or substitute parts. Check your packing list to verify that all listed parts have been received. You should have the following:

- Fireplace (Firebox and Burner System)
- Rock Wool
- Log Set

ITEMS REQUIRED FOR INSTALLATION

Tools:

- Phillips Screwdriver
- Hammer
- Saw and/or saber saw
- Pipe Wrench
- Level
- Measuring Tape
- Electric Drill and Bits
- Pliers
- Square

Building Supplies:

- Framing materials
- Wall finishing materials
- Non-combustible finishing material or dura-rock*
- Caulking material (non-combustible)
- Fireplace surround material (non-combustible)
- Piping complying with local codes
- Tee joint
- Pipe sealant approved for use with propane/LPG (resistant to sulfur compounds)

* Only used if desired to cover painted face other than using tiles or marble. If tiles or marble are used around the face then the non-combustible material is not needed.

FIREBOX FRAMING

Firebox framing can be built before or after the appliance is set in place. Construct firebox framing following *Figure 2* and the chart below for your specific installation requirements. See *Figure 3* on page 8 for firebox dimensions. The framing headers may rest on the top of the firebox standoffs. Do not bring headers below top of standoffs. *Please note: When planning your framing and installation, keep in mind that your gas line will come in on the right side of the box (as you are facing it) and your electricity will come in on the left side.*

WARNING

Unit framing is to be rectangular front to back. Failure to do so will cause fire and damage to property.

WARNING

Do not fill spaces around firebox with insulation or other materials. This could cause a fire.

The firebox may be installed directly on a combustible floor or raised on a platform of an appropriate height. When the firebox is installed directly on carpeting, tile, or other combustible material, other than wood flooring, the firebox shall be installed on a metal or wood panel extending the full width and depth of the enclosure.

	KHLDV400	KHLDV500
A	45 5/16"	49 5/16"
B	44 3/4"	44 3/4"
C	28 1/8"	32 1/8"
D	14 1/16"	16 1/16"
E	75 7/8"	79 7/8"
F	37 15/16"	39 15/16"
G	23 7/8"	23 7/8"
H	53 5/8"	56 7/16"

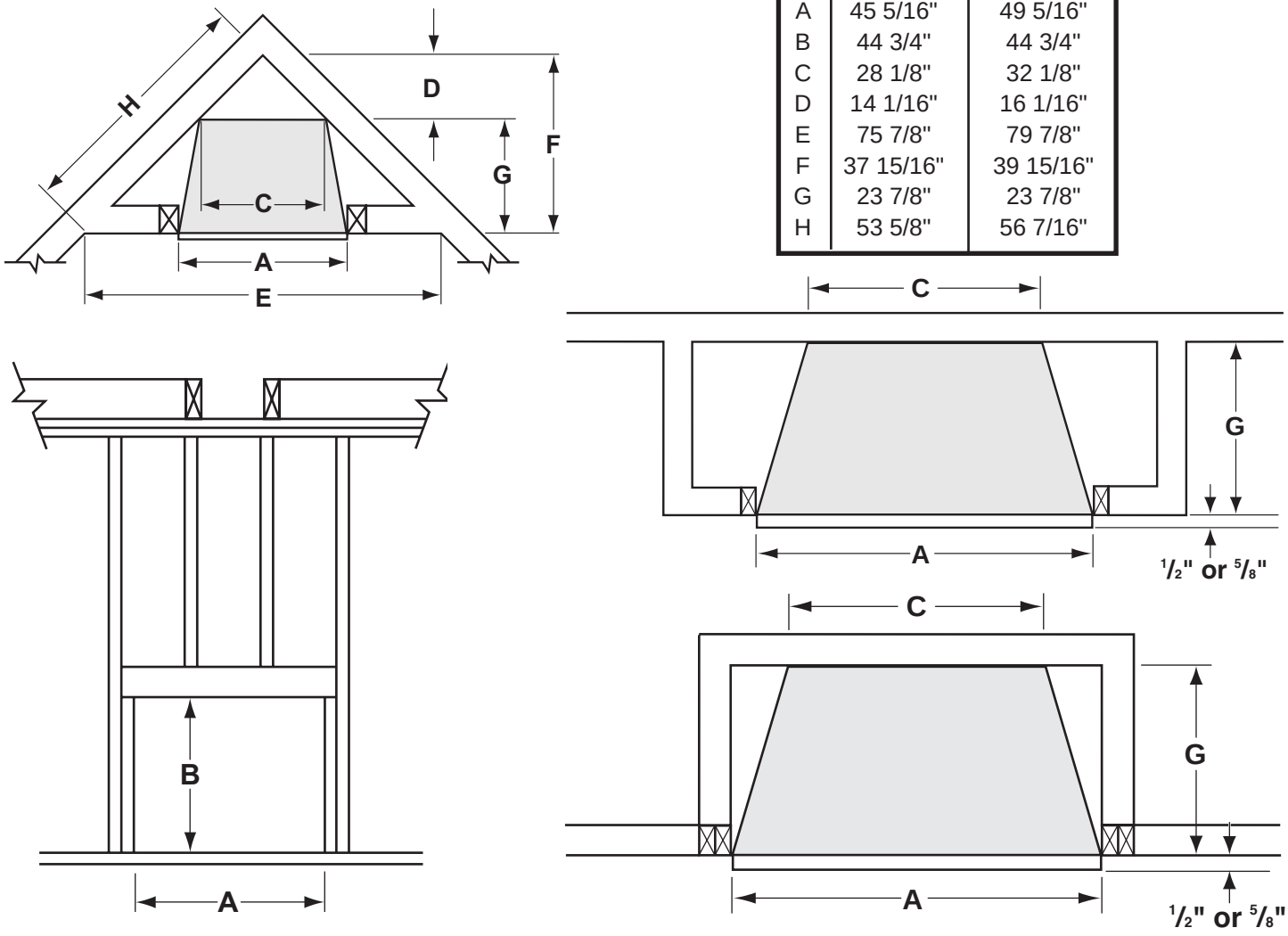


Figure 2 - Framing Dimensions

FIREPLACE DIMENSIONS

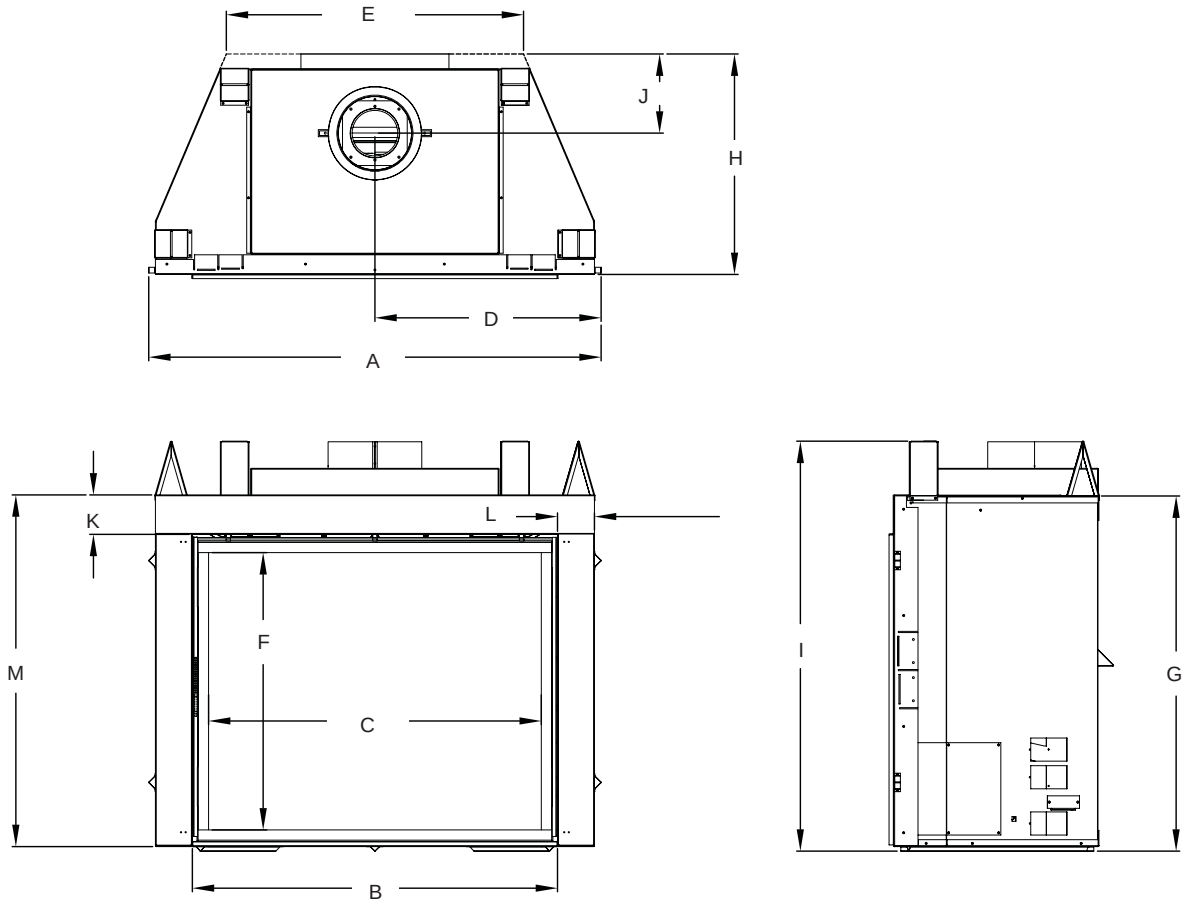


Figure 3 - Fireplace Dimensions

DESCRIPTION	Key Letter	KHLDV400	KHLDV500
Overall Front Width	A	44 15/16"	48 15/16"
Inside Width	B	35 1/2"	39 1/2"
Glass Width	C	32"	36"
CTR Pipe	D	22 1/2"	24 1/2"
Rear Width	E	28 1/8"	32 1/8"
Glass Height	F	30"	30"
Chassis Height	G	38 7/16"	38 7/16"
Depth	H	23 7/8"	23 7/8"
Height to Standoffs	I	44 3/8"	44 3/8"
CTR Height	J	8 9/16"	8 9/16"
Top Face	K	4 1/4"	4 1/4"
Side Face	L	4"	4"
Bottom Face	M	38 1/16"	38 1/16"

NOTE

COLD CLIMATE INSULATION

If you live in a cold climate, seal all cracks around your appliance, and wherever cold air could enter the room, with noncombustible material. It is especially important to insulate the outside chase cavity between the studs and under the floor on which the appliance rests, if the floor is above ground level.

FIREPLACE LOCATION

Plan for the installation of your appliance. This includes determining where the unit is to be installed, the vent configuration to be used, framing and finishing details, and whether any optional accessories (i.e. blower, wall switch, or remote control) are desired. Consult your local building code agency to ensure compliance with local codes, including permits and inspections.

The following factors should be taken into consideration:

- Clearance to side-wall, ceiling, woodwork, and windows. Minimum clearances to combustibles **must be maintained.**
- This fireplace may be installed along a wall, across a corner, or use an exterior chase. See *Figure 4* for suggested locations.
- Location should be out of high traffic areas and away from furniture and draperies due to heat from appliance.
- Never obstruct the front opening of the fireplace.
- Do **not** install in the vicinity where gasoline or other flammable liquids may be stored.
- Vent pipe routing. See *Venting* section found in this manual for allowable venting configurations.
- These units can be installed in a bedroom. See National Fuel Gas Code ANSI Z233.1/NFPA 54 — (current edition), the Uniform Mechanical Code — (current edition), and Local Building Codes for specific installation requirements.
- These units can be installed in a bathroom.

A	Flat on Wall
B	Cross Corner
C	Island**
D	Room Divider*
E	Flat on Wall Corner*
F	Chase Installation
Y	6" Minimum

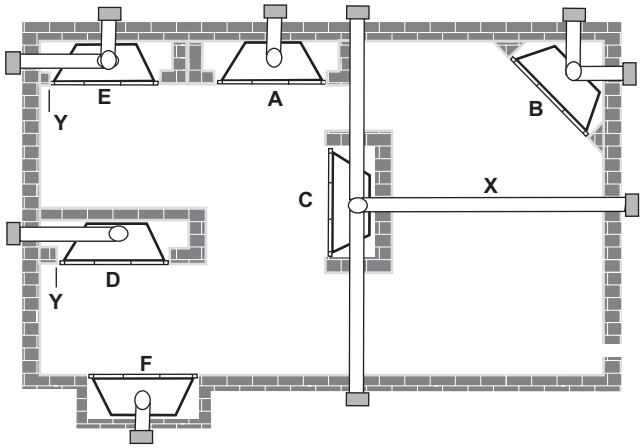


Figure 4 - Locating Gas Fireplace

** Island (C) and room divider (D) installation is possible as long as the horizontal portion of vent system (X) does not exceed 20'. See *Installing Horizontal Termination Configuration* on pages 18 and 19.

* When you install your fireplace in (D) room divider or (E) flat on wall corner positions (Y), a minimum of 6" clearance must be maintained from perpendicular wall and front of fireplace.

CLEARANCES

CLEARANCES TO COMBUSTIBLES

WARNING

Follow these instructions carefully to ensure safe installation. Failure to follow instructions exactly can create a fire hazard.

The appliance cannot be installed on a carpet, tile or other combustible material other than wood flooring. If installed on carpet or vinyl flooring, the appliance shall be installed on a metal, wood or noncombustible material panel extending full width and depth of the appliance.

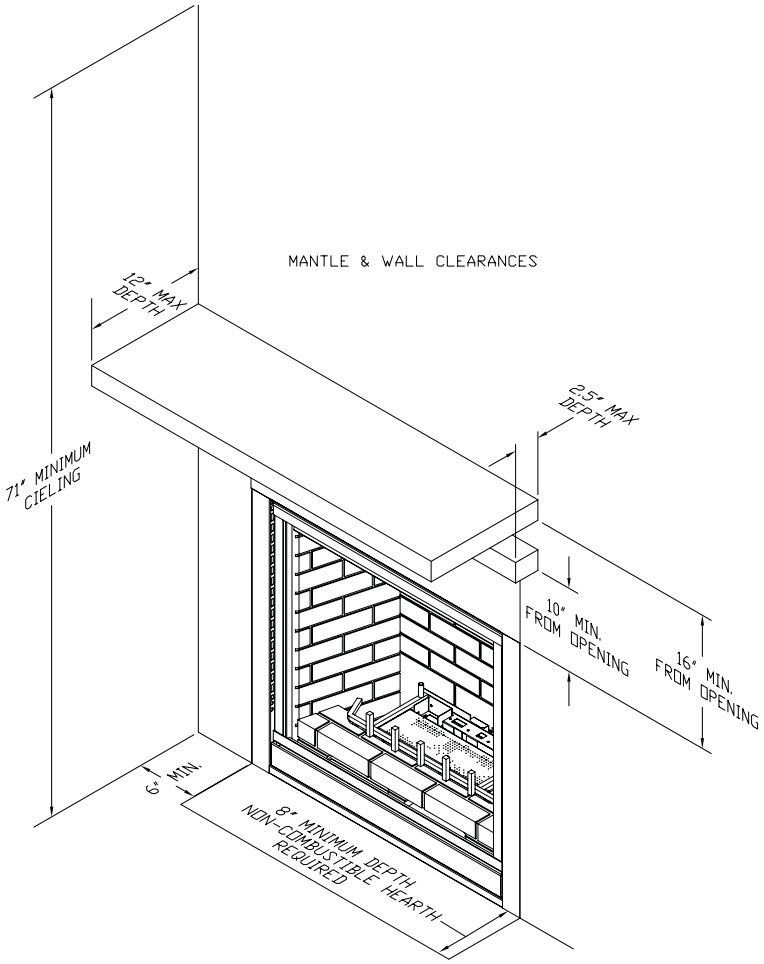


Figure 5 - Clearances from the mantel, ceiling, and side wall.

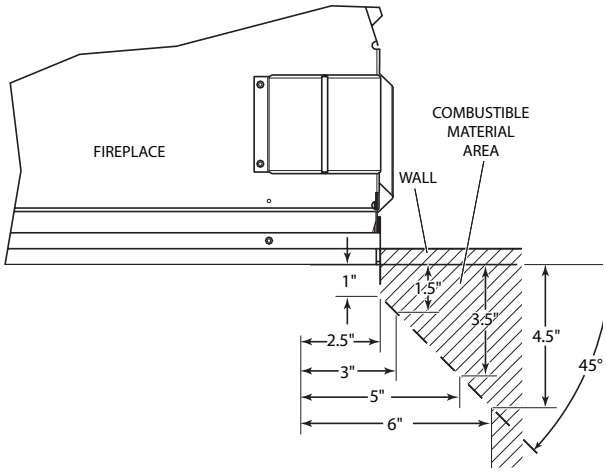


Figure 5a - Mantel clearances.

MANTEL CLEARANCES

NOTE: The combustible area above the facing must not protrude more than 3/4" from the facing. If it does, it is considered a mantel and must meet the mantel requirements listed in this manual.

The fireplace must be secured to the floor and/or to framing studs as shown in *Figure 6.* Use two (2) wood screws or masonry/ concrete screws to secure fireplace to the floor. Use four (4) screws to attach fireplace to framing. The side nailing flanges are 1/2" or 5/8" to accommodate different wall thickness.

NOTE **Never install combustible materials over front face of fireplace.**

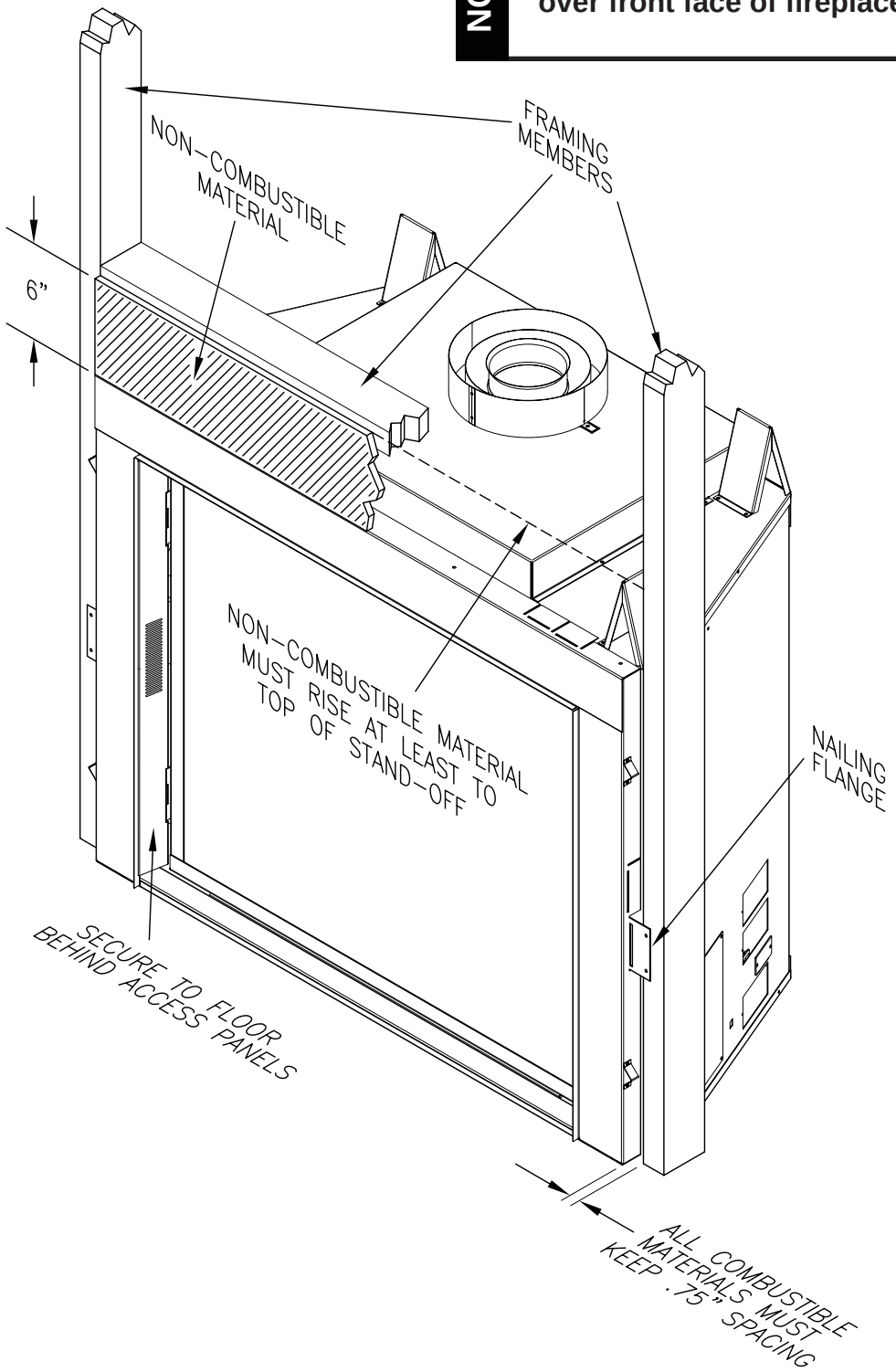

FRAMING MEMBERS
NON-COMBUSTIBLE MATERIAL
6"
NON-COMBUSTIBLE MATERIAL MUST RISE AT LEAST TO TOP OF STAND-OFF
NAILING FLANGE
SECURE TO FLOOR BEHIND ACCESS PANELS
ALL COMBUSTIBLE MATERIALS MUST KEEP .75" SPACING

Figure 6 - Securing Fireplace to Floor and Framing Studs

INSTALLATION INFORMATION

FINISHING MATERIAL

NOTE: Any remote wiring (i.e. remote control, wall switch, and optional fan) must be done prior to final finishing to avoid costly reconstruction.

Only noncombustible materials (i.e. brick, tile, slate, steel, or other materials with a UL fire rating of Zero) may be used to cover the black painted face of the appliance. It is permissible to bring combustible wall board to the top of the stand offs on the top and the sides of the unit. A 300°F minimum adhesive may be used to attach facing materials to the black surface. If joints between the finished wall and the fireplace surround are sealed, a 300°F minimum sealant material (General Electric RTV103 or equivalent) must be used.

VENT INSTALLATION

WARNING

Read all instructions completely and thoroughly before attempting installation. Failure to do so could result in serious injury, property damage or loss of life. Operation of improperly installed and maintained venting system could result in serious injury, property damage or loss of life.

NOTICE

Failure to follow these instructions will void the warranty.

INSTALLATION PRECAUTIONS

Consult local building codes before beginning the installation. The installer must make sure to select the proper vent system for installation. Before installing vent kit, the installer must read this fireplace manual and vent kit instructions.

Only a qualified installer/service person should install venting system. The installer must follow these safety rules:

- Wear gloves and safety glasses for protection.
- Use extreme caution when using ladders or when on rooftops.
- Be aware of electrical wiring locations in walls and ceilings.

The following actions will void the warranty on your venting system:

- Installation of any damaged venting component.
- Unauthorized modification of the venting system.
- Installation of any component part not manufactured or approved by MHS.
- Installation other than permitted by these instructions.

WARNING

This fireplace must be vented to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance. Each gas appliance must use a separate vent system. Do not use common vent systems.

WARNING

Horizontal sections of this vent system require a minimum of 3" clearances to combustibles at the top of the flue and 1" clearance at the sides and bottom *until the flue penetrates the outside wall.* A minimum 1" clearance all around the flue is acceptable at this point of penetration.

Vertical sections of this vent system require a minimum of 2" clearance to combustibles at the top of the unit directly above the stand-off. A minimum of 1" clearance all around the flue is acceptable thereafter.

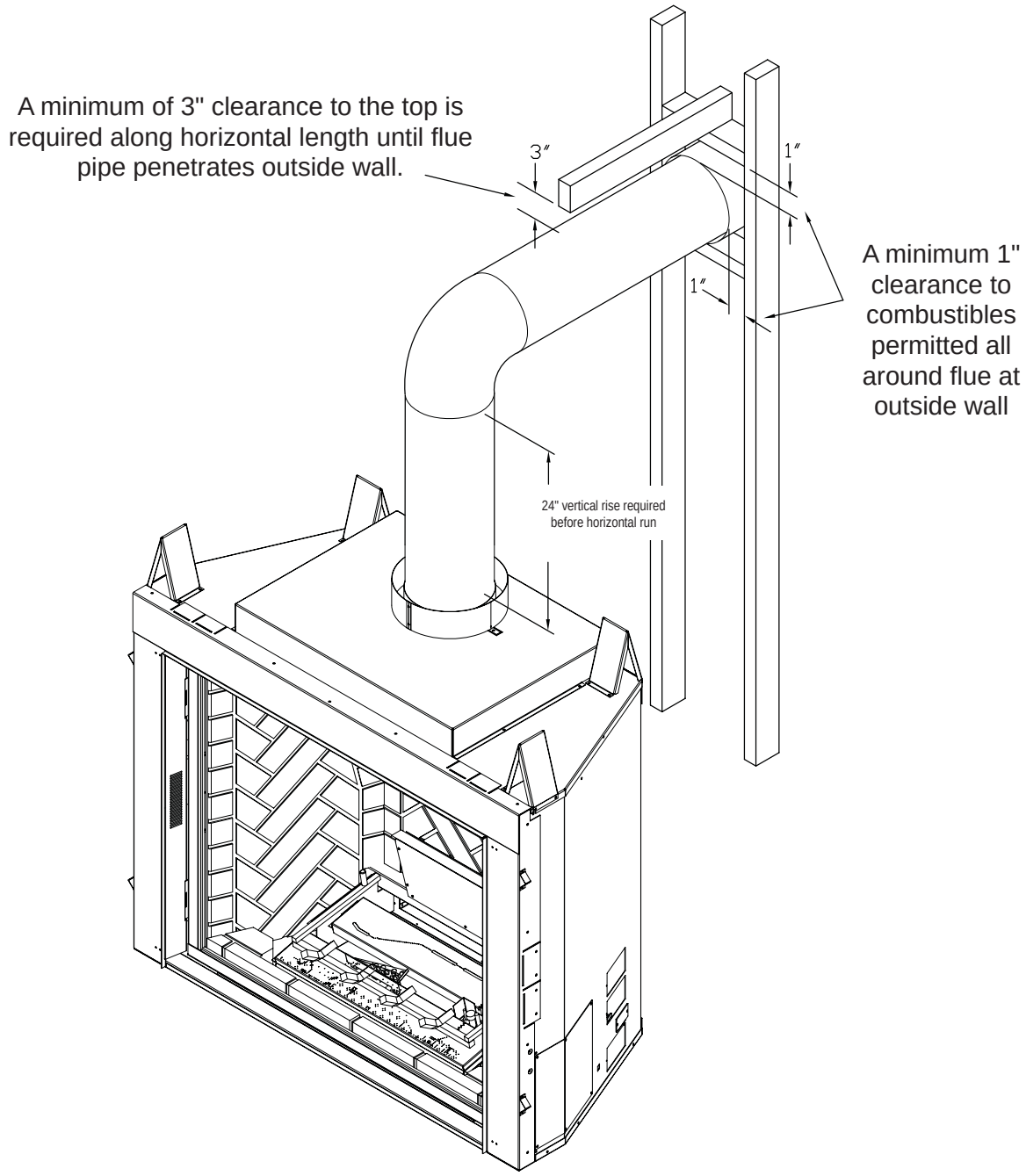

A minimum of 3" clearance to the top is required along horizontal length until flue pipe penetrates outside wall.
3″
1″
1″
A minimum 1" clearance to combustibles permitted all around flue at outside wall
24" vertical rise required before horizontal run

Figure 7 - Combustible Clearances for Vent Pipe

VENT INSTALLATION

INSTALLATION PLANNING

There are two basic types of direct-vent installation:

- Horizontal Termination
- Vertical Termination

It is important to select the proper length of vent pipe for the type of termination you choose. It is also important to note the wall thickness.

FOR HORIZONTAL TERMINATION

Select the amount of vertical rise desired. All horizontal run of venting must have 1/4" rise for every 12" of run towards the termination.

You may use up to three 90° elbows in this vent configuration. See Vertical/Horizontal Termination Configurations on pages 17 and 18.

WARNING

Never run the vent pipe level or downward. This may cause excessive temperatures which could cause a fire.

FOR VERTICAL TERMINATION

Measure the distance from the fireplace floor to the ceiling. Add the ceiling thickness, the vertical rise in an attic or second story, and allow for sufficient vent height above the roof line.

NOTE: You may use two 45° elbows in place of a 90° elbow. You must follow rise to run ratios when using 45° elbows. The appliance is approved for use with three 90° elbows maximum or a combination of 90° and 45° elbows up to a maximum of 270°.

For two-story applications, firestops are required at each floor level. If an offset is needed in the attic, additional pipe and elbows will be required.

You may use a chase with a vent termination with exposed pipe on the exterior of the house. See *Installing A Vent System in an Outside Chase* below. If pipe is enclosed in chase, it is not exposed.

It is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust. Certain limitations apply to vent configurations and must be strictly followed.

INSTALLING A VENT SYSTEM IN AN OUTSIDE CHASE

A chase is a vertical boxlike structure built to enclose venting that runs along the outside of a building. A chase is required for such venting.

NOTICE

Treatment of firestops and construction of the chase may vary from building type to building type. These instructions are not substitutes for the requirements of local building codes. You must follow all local building codes.

NOTICE

When installing in a chase, you should insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Insulation should be considered a combustible material. Maintain proper clearances to all combustible materials.

FOR HORIZONTAL TERMINATION

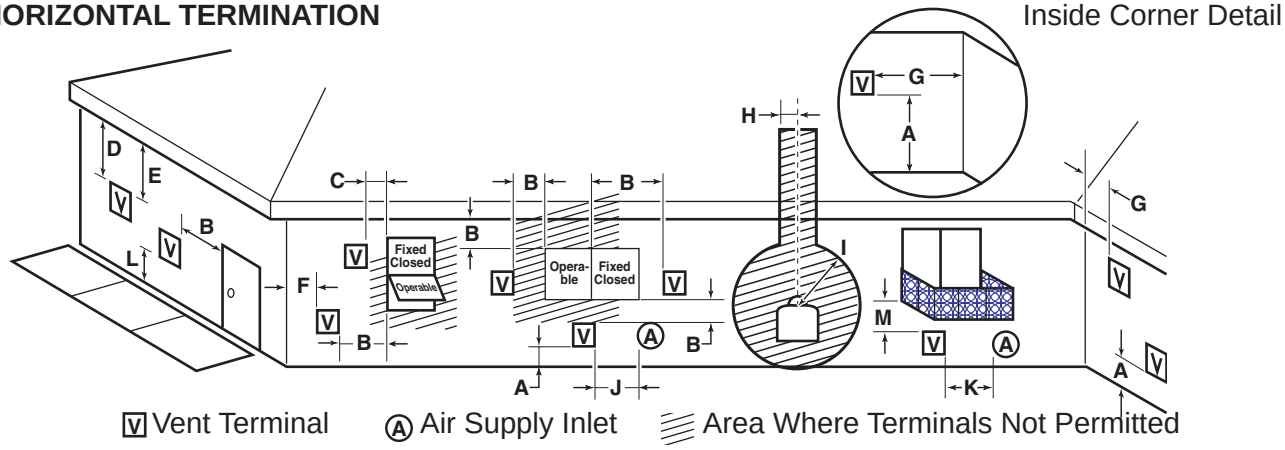


Figure 8 - Horizontal Vent Termination Location

MINIMUM DISTANCES

A = Clearance above the grade, a veranda, porch, deck, or balcony [*12" (305mm) minimum].
B = Clearance to window or door that may be opened [*12" (305mm) minimum].
C = Clearance to permanently closed window [*minimum 12" (305mm) recommended to prevent condensation on window]
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of two (2) feet (610mm) from the centerline of the terminal [18" (457mm) minimum].
E = Clearance to unventilated soffits [12" (305mm) minimum]. Clearance to vinyl soffit [30" (762mm)].
F = Clearance to an outside corner. *See Figure 9.*
G = Clearance to an inside corner. *See Figure 9.*
H = *Not to be installed above a gas meter/regulator assembly within three (3) feet (914mm) horizontally from the centerline of the regulator.
I = Clearance to service regulator vent outlet [*3' (914mm) minimum].
J = Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance [*12" (305mm)minimum].
K = Clearance to a mechanical air supply inlet [*6' (1829mm) minimum].
L = Clearance above a paved sidewalk or paved driveway located on public property [**7' (2133mm) minimum].
M = Clearance under veranda, porch, deck, or balcony [*12" (305mm) minimum***].

* As specified in CAN/CGA B149 Installation Codes. Note: Local codes or regulations may require different clearances.
** A vent must not terminate directly above a sidewalk or paved driveway, which is located between two single-family dwellings and serves both dwellings.
*** Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

WARNING

Always maintain minimum clearances around vent systems. The minimum clearances to combustibles for horizontal vent pipe are 3" at the top and 1" at the sides and bottom of the vent system until the pipe penetrates the nearest vertical wall (1" required). A 1" minimum clearance all around the pipe must be maintained at outside wall and on vertical runs. Do not pack the open air spaces with insulation or other materials. This could cause high temperatures and may present a fire hazard.

TERMINATION CLEARANCES FOR BUILDINGS WITH COMBUSTIBLE AND NONCOMBUSTIBLE EXTERIORS

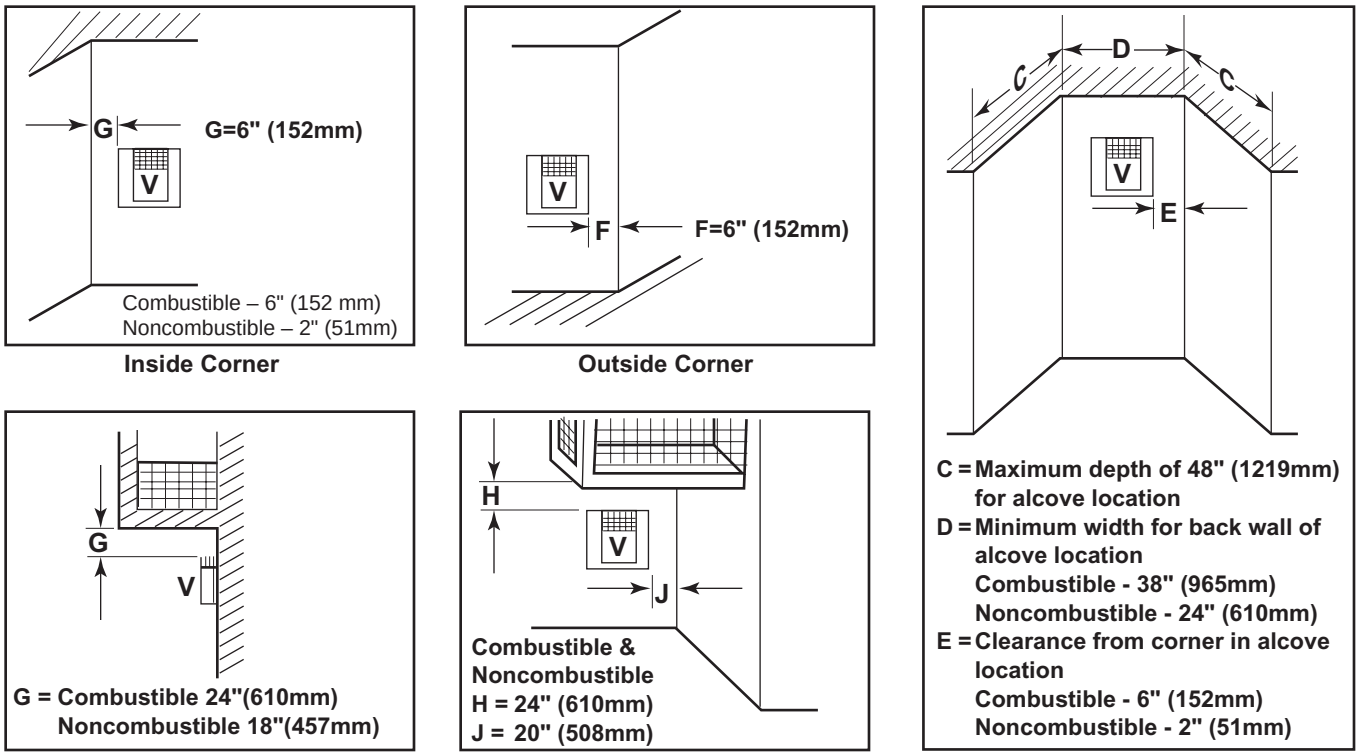


Figure 9 - Allowable Venting Chart

HOW TO USE THE VENT GRAPH

The Vent Graph should be read in conjunction with the following vent installation instructions to determine the relationship between the vertical and horizontal dimensions of the vent system.

1. Determine the height of the center of the horizontal vent pipe exiting through the outer wall. Using this dimension on the Sidewall Vent Graph below, locate the point intersecting with the slanted graph line.
2. From the point of this intersection, draw a vertical line to the bottom of the graph.
3. Select the indicated dimension, and position the fireplace in accordance with same.

   Example: If the vertical dimension from the floor of the fireplace is 11' (3.4m) the horizontal run to the face of the outer wall must not exceed 14' (4.3m).

   Example: If the vertical dimension from the floor of the unit is 7' (2.14m), the horizontal run to the face of the outer wall must not exceed 8½' (2.6m).

Sidewall Vent Graph showing the relationship between vertical and horizontal dimensions for a Direct Vent flue system.

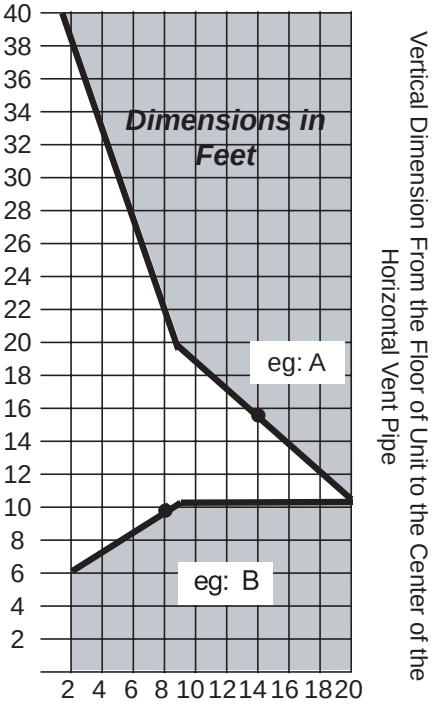


Figure 10 - Rear Wall Venting Graph

VERTICAL/HORIZONTAL TERMINATION CONFIGURATIONS

Since it is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust, certain limitations as to vent configurations apply and must be strictly adhered to.

The Vent Graph, showing the relationship between vertical and horizontal side wall venting, will help to determine the various dimensions allowable. *See Figure 10.*

NOTE: Horizontal sections of this vent system require a minimum of 3" clearances to combustibles at the top of the flue and 1" clearance at the sides and bottom until the flue penetrates the outside wall. A minimum 1" clearance all around the flue is acceptable at this point of penetration.

Vertical sections of this vent system require a minimum of 1" clearance to combustibles on all sides of the pipe.

When vent exits through foundations less than 20" below outcrop, the termination must be flush up with outcropped wall above.

It is best to locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length.

The horizontal vent run refers to the total length of vent pipe from the flue collar of the fireplace (or the top of the Transition Elbow) to the face of the finished outside wall.

- The maximum number of 90° elbows per side wall installation is three (3). *See Figure 11.*
- A minimum of 24" is required before a 90° elbow. If a 90° elbow is fitted directly after 24" vertical section mounted to the top of the fireplace, the maximum horizontal vent run before the termination or a vertical rise is 36” (914 mm). *See Figure 12.*

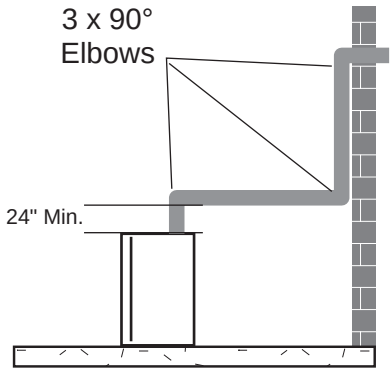


Figure 11 - Maximum Three (3) 90° Elbows Per Installation

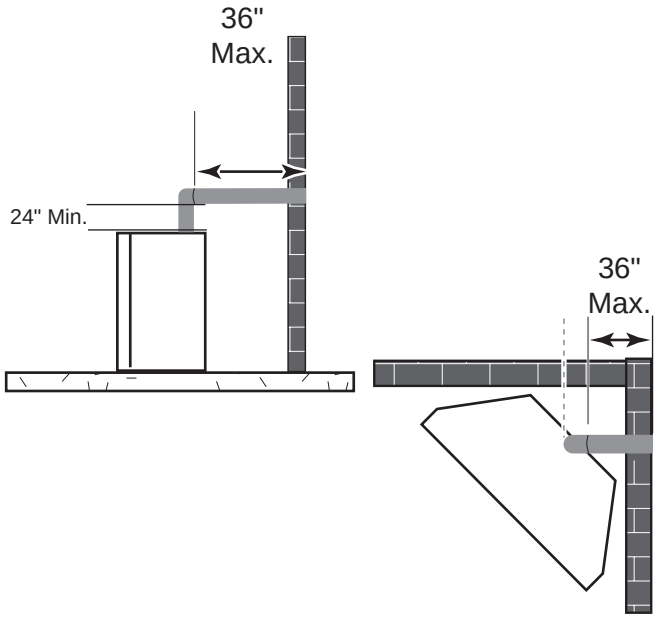


Figure 12 - Maximum Horizontal Run with No Rise

VERTICAL/HORIZONTAL TERMINATION CONFIGURATIONS *(continued)*

- If a 90° elbow is used in the horizontal vent run (level height maintained) the horizontal vent length is reduced by 36". *See Figures 11 and 12,* page 17. This does not apply if the 90° elbows are used to increase or redirect a vertical rise. *See Figure 14.*

Example: According to the vent graph (page 16) the maximum horizontal vent length in a system with a 10' vertical rise is 20' (6m) and if a 90° elbow is required in the horizontal vent it must be reduced to 17' (5.2 m).

In *Figures 13 and 14* dimension A plus B must not be greater than 17' (5.2m).

- The maximum number of 45° elbows permitted per side wall installation is two (2). These elbows can be installed in either the vertical or horizontal run.
- For each 45° elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18" (45cm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.
- The maximum number of elbow degrees in a system is 270°. *See Figure 15.*

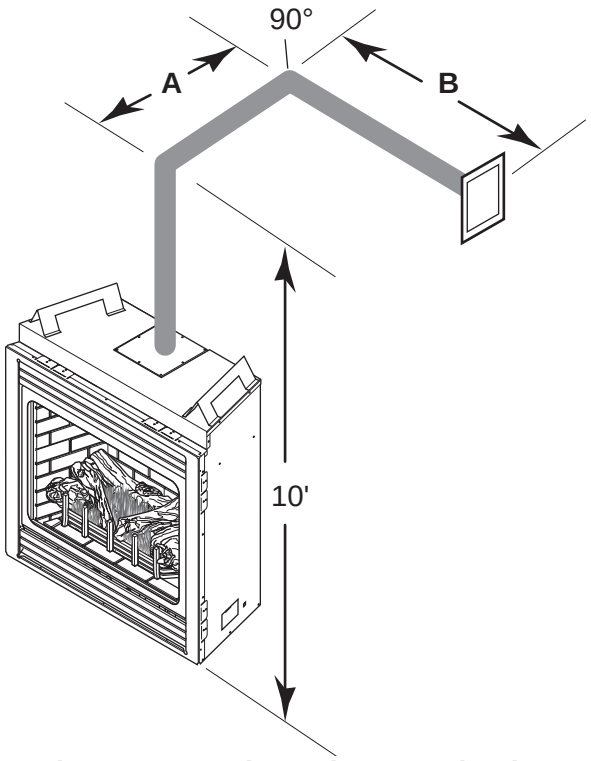


Figure 13 - Horizontal Run Reduction

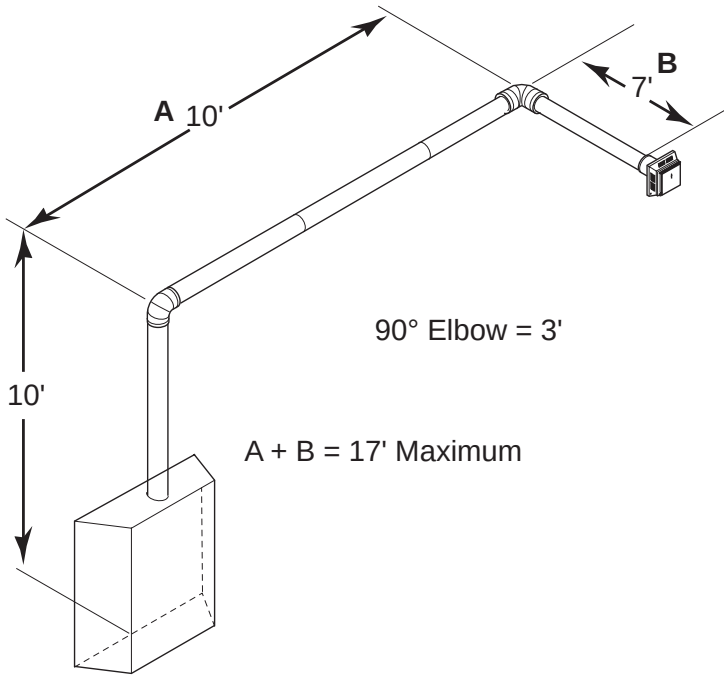
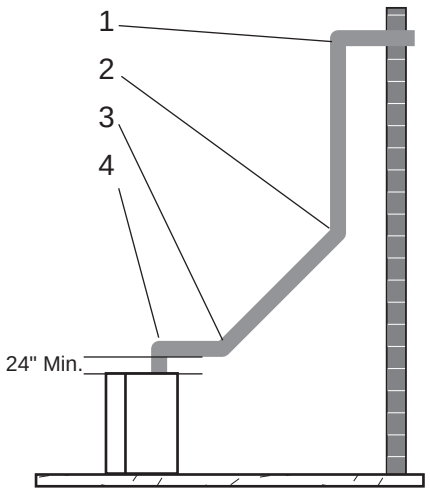


Figure 14 - Maximum Vent Run with Elbows

Example:	Elbow 1	=	90°
	Elbow 2	=	45°
	Elbow 3	=	45°
	Elbow 4	=	90°
Total Angular Variation		=	270°



1 + 2 + 3 + 4 = 270°

Figure 15 - Maximum Elbow Usage

BELOW GRADE INSTALLATIONS

When it is not possible to meet the required vent terminal clearances of 12" above grade level, a snorkel kit is recommended. It allows installation depth down to 7" (178mm) below grade level. The 7" (178mm) is measured from the center of the horizontal vent pipe as it penetrates through the wall.

Ensure that sidewall venting clearances are observed. If venting system is installed below ground, we recommend a window well with adequate and proper drainage to be installed around the termination area.

If installing a snorkel, a minimum 24" vertical rise is necessary. The maximum horizontal run with the 24" vertical pipe is 36". This measurement is taken from the collar of the fireplace (or transition elbow) to the face of the exterior wall. See the Sidewall Venting Graph for extended horizontal run if the vertical exceeds 24".

1. Establish vent hole through the wall.
2. Remove soil to a depth of approximately 16" below base of snorkel. Install drain pipe. Install window well (not supplied). Refill hole with 12" of coarse gravel leaving a clearance of approximately 4" below snorkel. *See Figure 16.*
3. Install vent system.
4. Ensure a watertight seal is made around the vent pipe coming through the wall.
5. Apply high temperature sealant caulking (supplied) around the 5" and 8" snorkel collars.
6. Slide the snorkel into the vent pipes and secure to the wall.
7. Level the soil so as to maintain a 4" clearance below snorkel. *See Figure 16.*

WARNING

- **Do not back fill around snorkel.**
- **A clearance of at least 4" must be maintained between the snorkel and the soil.**

If the foundation is recessed, use recess brackets (not supplied) for securing lower portion of the snorkel. Fasten brackets to wall first, then secure to snorkel with self drilling #8x1/2 sheet metal screws. It will be necessary to extend vent pipes out as far as the protruding wall face. *See Figure 17.*

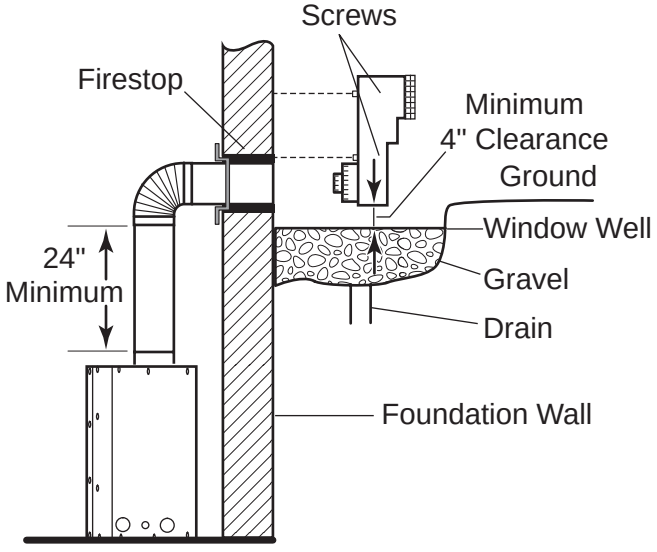


Figure 16 - Below Grade Installation

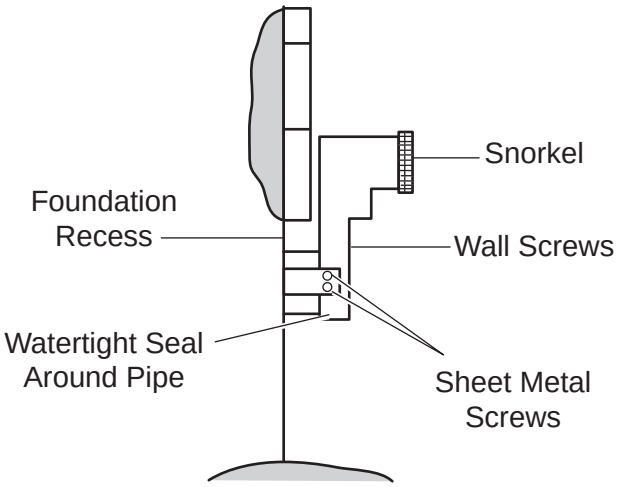


Figure 17 - Snorkel Installation, Recessed Foundation

VERTICAL (THROUGH-THE-ROOF) APPLICATIONS

This gas fireplace has been approved for,

- Vertical installations up to 40' (12m) in height. Up to a 10' (3m) horizontal vent run can be installed within the vent system using a maximum of two 90° elbows. *See Figure 18.*

NOTE: Horizontal sections of this vent system require a minimum of 3" clearances to combustibles at the top of the flue and 1" clearance at the sides and bottom until the flue penetrates the outside wall. A minimum 1" clearance all around the flue is acceptable at this point of penetration.

Vertical sections of this vent system require a minimum of 1" clearance to combustibles on all sides of the pipe.

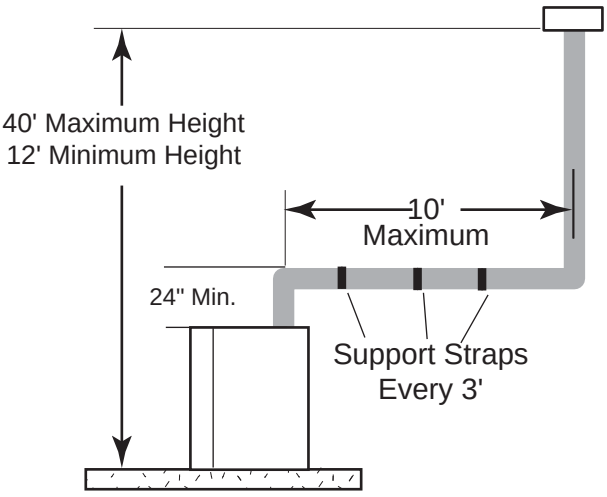


Figure 18 - Support Straps for Horizontal Runs

- Up to two 45° elbows may be used within the horizontal run. For each 45° elbow used on the horizontal plane, the maximum horizontal length must be reduced by 18" (450mm).

Example: Maximum horizontal length

No elbows	=	10' (3m)
1x45° elbows	=	8.5' (2.6m)
2x45° elbows	=	7' (2.1m)

- A minimum of an 8' (2.5m) vertical rise is required.
- Two sets of 45°elbows offsets may be used within the vertical sections. From 0 to a maximum of 8' (2.5 m) of vent pipe can be used between elbows. *See Figure 19.*
- The maximum angular variation allowed in the system is 270°. *See Figure 19.*
- The minimum height of the vent above the highest point of penetration through the roof is 2' (610mm).

Example:	Elbow 1	=	90°
	Elbow 2	=	45°
	Elbow 3	=	45°
	Elbow 4	=	90°
Total Angular Variation		=	270°

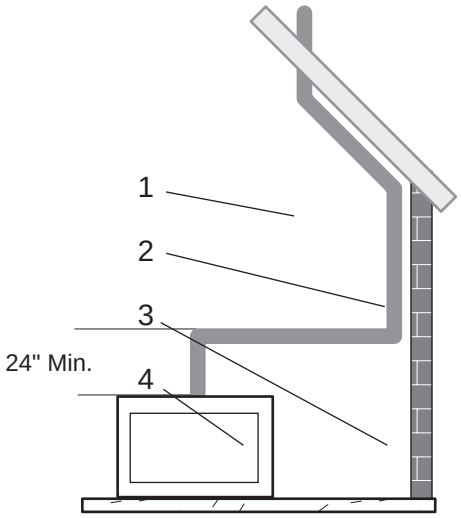


Figure 19 - Maximum Elbow Usage

INSTALLATION FOR VERTICAL TERMINATION

1. Determine the route your vertical venting will take. If ceiling joist, roof rafters or other framing will obstruct the venting system, consider an offset. *See Figure 20* to avoid cutting load bearing members.

For optimal flame appearance, a restrictor disk is necessary on straight vertical runs of 10' of more.

- Runs may not incorporate elbows.
- The disk is part number 56D3027 and is included in installation manual packet.
- Drop the disk into a 5" inner collar before installing the first section of flue or install at the last section before installing the termination.
- An additional disk may be installed on runs of 35' or more. Rotate disks perpendicular to each other.

NOTE: Pay special attention to these installation instructions for required clearances (air space) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, etc. Do not pack air spaces with insulation. Also note maximum vertical rise of the venting system and any maximum horizontal offset limitations. Offsets must fall within the parameters shown in Figures 19 and 20.

2. Set fireplace in desired location. Drop a line plumb down from the ceiling to the position of the flue exit. Mark the center point where the vent will penetrate the ceiling. Drill a small locating hole a this point.

   Drop a plumb line from the inside of the roof to the ceiling locating hole in the ceiling. Mark the center point where the vent will penetrate the roof. Drill a small locating hole at this point.

FLAT CEILING INSTALLATION

1. Cut a $10^1/_2$" (241mm) square hole in the ceiling using the locating hole as a center point The opening should be framed to $10^1/_2$"x$10^1/_2$" (241mm x 241mm) inside dimensions as shown in *Figure 22* using framing lumber the same size as the ceiling joist. If the area above the ceiling is an insulated ceiling or a room, nail firestop from the top side. This prevents loose insulation from falling into the required clearance space. *See Figure 21.* Otherwise, install firestop below the framed hole. *See Figure 22.*
2. Assemble the desired lengths of pipe and elbows necessary to reach from the burner system flue up through the firestop. Be sure pipe and elbow connections are fully twist-locked.

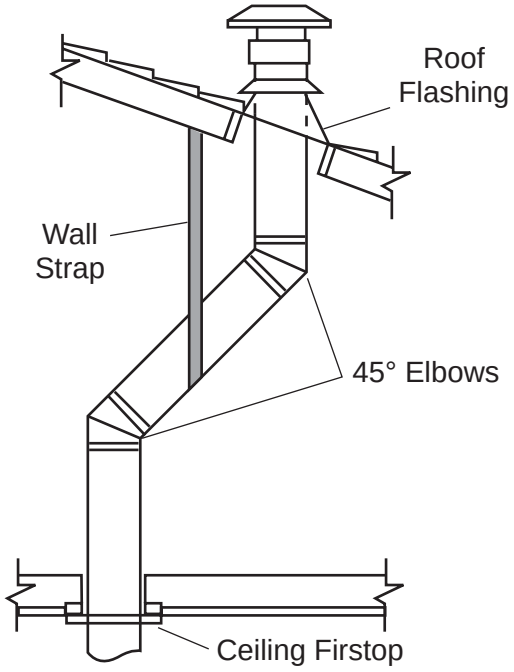


Figure 20 - Offset with Wall Strap and 45° Elbows

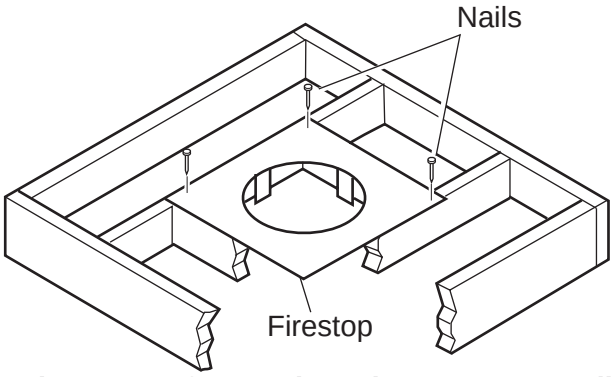


Figure 21 - If Area Above is a Room, Install Firestop above Framed Hole as Shown

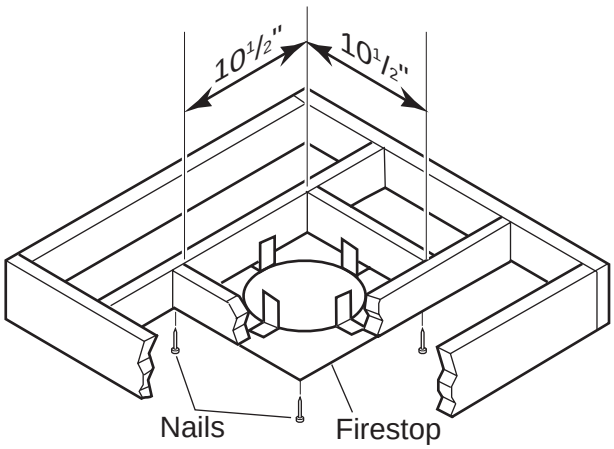


Figure 22 - If Area Above is Not a Room, Install Firestop above Framed Hole as Shown

3. Cut a hole in the roof using the locating hole as a center point. (Cover any exposed open vent pipes before cutting hole in roof). The $10^1/_2$"x$10^1/_2$" (241mm x 241mm) hole must be measured on the horizontal. Actual length may be larger depending on the pitch of the roof. There must be a 1" minimum clearance from the vent pipe to combustible materials. (Insulation should be considered a combustible material).
4. Connect a section of pipe and extend up through the hole.

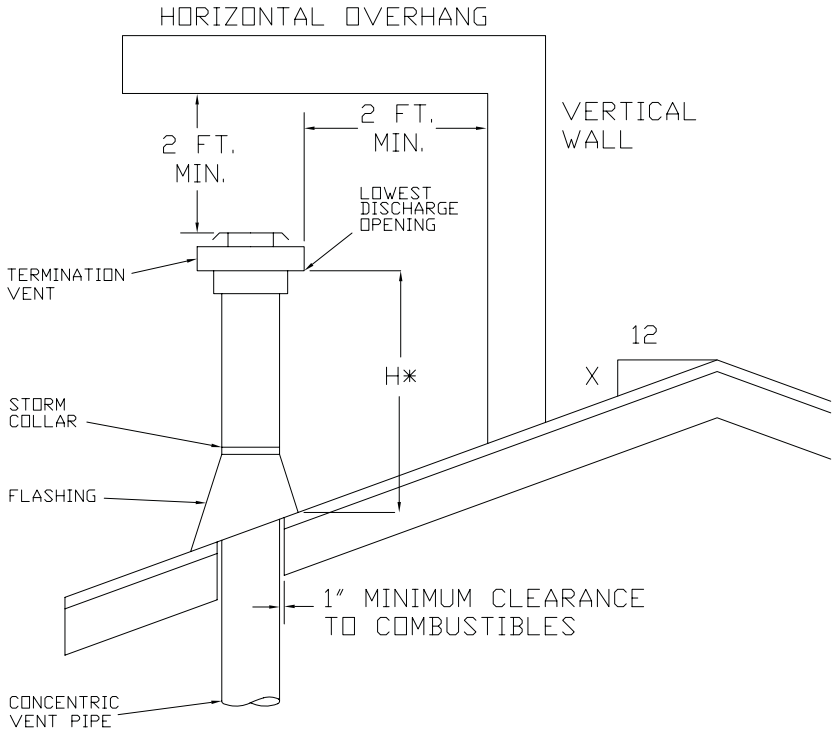
NOTE: If an offset is needed to avoid obstructions, you must support the vent pipe every three (3) feet. Use wall straps for this purpose. See Figure 18, page 19. Whenever possible, use 45° elbows instead of 90° elbows. The 45° elbow offers less restriction to the flow of the flue gases and intake air.

5. Place the flashing over the pipe section(s) extending through the roof. Secure the base of the flashing to the roof and framing with roofing nails. Be sure roofing material overlaps the top edge of the flashing. There must be a 1" clearance from the vent pipe to combustible materials.
6. Continue to add pipe sections until the height of the vent cap meets the minimum building code requirements.

NOTE: You must increase vent height for steep roof pitches. Nearby trees, adjoining roof lines, steep pitched roofs, and other similar factors may cause poor draft or down-drafting in high winds. Increasing the vent height may solve this problem.

NOTE: If the vent pipe passes through any occupied areas above the first floor, including storage spaces and closets, you must enclose pipe. You may frame and sheetrock the enclosure with standard construction material. Make sure to meet the minimum allowable clearances to combustibles. Do not fill any of the required clearance spaces with insulation.

TERMINATION HEIGHTS FOR VENTS ABOVE FLAT OR SLOPED ROOFS



ROOF PITCH	H (feet)
Flat to 6/12	1.0
Over 6/12 to 7/12	1.25
Over 7/12 to 8/12	1.5
Over 8/12 to 9/12	2.0
Over 9/12 to 10/12	2.5
Over 10/12 to 11/12	3.25
Over 11/12 to 12/12	4.0

*H = Minimum height from roof to lowest discharge oopening of vent.

CHECK GAS TYPE

Use proper gas type for the fireplace you are installing. If you have conflicting gas type, do not install fireplace. See dealer where you purchased the fireplace for proper fireplace for your gas type or conversion kit.

INSTALLING GAS PIPING TO FIREPLACE / BURNER SYSTEM LOCATION

WARNING

A qualified installer or service person must connect appliance to gas supply. Follow all local codes.

CAUTION

For propane/LP units, never connect fireplace directly to the propane/LP supply. This burner system requires an external regulator (not supplied). Install the external regulator between the burner system and propane/LP supply.

INSTALLATION ITEMS NEEDED

Before installing fireplace and burner system, make sure you have the items listed below.

- External regulator (supplied by installer)
- Equipment shutoff valve*
- Tee joint
- Piping (check local codes)
- Test gauge connection*
- Pipe wrench
- Sealant (resistant to propane/LP gas)
- Sediment trap (recommended)
- Approved flexible gas line with gas connector (if allowed by local codes — not provided)

* A CSA design-certified equipment shutoff valve with $^1/_8$" NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA design-certified equipment shutoff valve from your dealer.

For propane/LP connections only, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 13 inches of water. If you do not reduce incoming gas pressure, burner system regulator damage could occur. Install external regulator with the vent pointing down as shown in *Figure 23.* Pointing the vent down protects it from freezing rain or sleet.

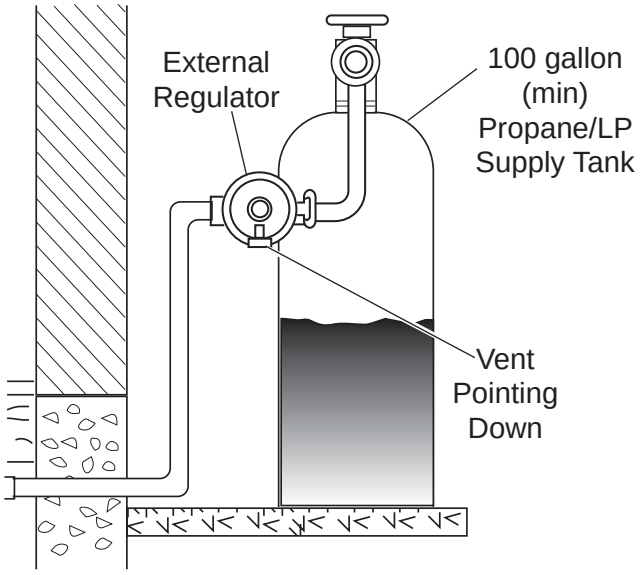


Figure 23 - External Regulator with Vent Pointing Down (Propane/LP Only)

CAUTION

Use only new black iron or steel pipe. Internally tinned copper or copper tubing can be used per National Fuel Code, section 2.6.3, providing gas meets hydrogen sulfide limits, and where permitted by local codes. Gas piping system must be sized to provide minimum inlet pressure (listed on data plate) at the maximum flow rate (BTU/hr). Undue pressure loss will occur if the pipe is too small.

When using copper of flex connectors use only fittings approved for gas connections. The gas control inlet is $^3/_8$" NPT.

WARNING

Only persons licensed to work with gas piping may make the necessary gas connections to this appliance.

CAUTION

A manual shutoff valve must be installed upstream of the appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance. *See Figure 24.*

NOTE : The gas line connection may be made using 1/2" rigid tubing or an approved flex connector. Since some municipalities have additional local codes it is always best to consult your local authorities and the current edition of the National Fuel Gas Code ANSI.Z223.1, NFPA54. In Canada CAN/CGA-B149 (1 or 2) Installation Code.

A listed manual shutoff valve must be installed upstream of the appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance. *See Figure 24.*

IMPORTANT: Install main gas valve (equipment shutoff valve) in an accessible location. The main gas valve is for turning on or shutting off the gas to the fireplace.

Check your building codes for any special requirements for locating equipment shutoff valve to fireplaces.

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged burner system valves.

CAUTION

Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

We recommend that you install a sediment trap/drip leg in supply line as shown in *Figure 24*. Locate sediment trap/drip leg where it is within reach for cleaning. Install in piping system between fuel supply and burner system. Locate sediment trap/drip leg where trapped matter is not likely to freeze. A sediment trap collects moisture and contaminants and keeps them from going into the burner system gas controls. If sediment trap/drip leg is not installed or is installed wrong, burner system may not run properly.

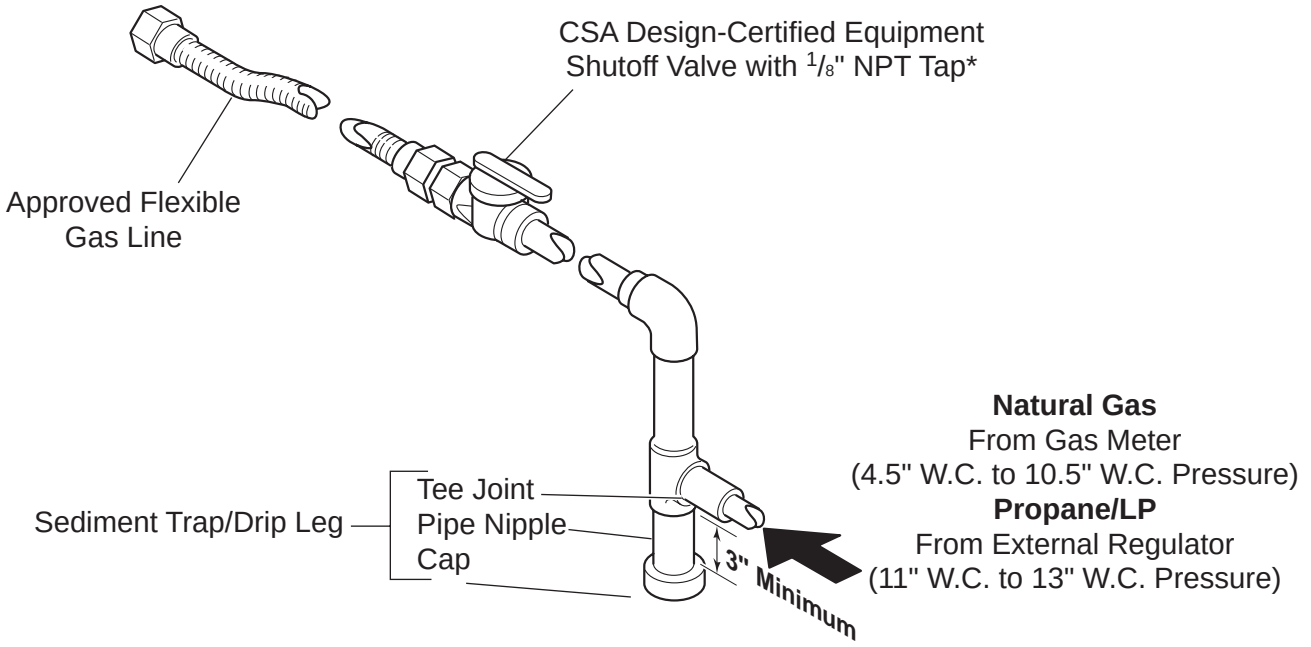


Figure 24 - Gas Connection

1. Check gas type. The gas supply must be the same as stated on the appliance's rating decal. If the gas supply is different from the fireplace, STOP! Do not install the appliance. Contact your dealer immediately.
2. To ease installation, a 24" (mm) flex line with manual shut-off valve has been provided with on this appliance. Install and attach $^{3}/_{8}$" gas line onto shut-off valve.
3. After completing gas line connection, purge air from gas line and test all gas joints from the gas meter to the fireplace for leaks. Use a solution of 50/50 water and soap solution or a gas sniffer.
4. To adjust flame height, turn HI/LO knob to HI to get maximum pressure to burner. Turn HI/LO knob to LO to get minimum pressure. *NOTE: To make the process of checking the gas pressure easier, unfasten the two screws which secure the gas valve to the side of the firebox and bring forward. [Remove the glass to allow the valve to come forward. (See page 29 for glass removal.)] When done, you must refasten the gas valve into place.*
5. To check gas pressures at valve, turn captured screw counter clockwise 2 or 3 turns and then place tubing to pressure gauge over test point. Turn unit to high. *See Figure 25.* After taking pressure reading, be sure and turn captured screw clockwise firmly to reseal. Do not over torque. Check test points for gas leaks.

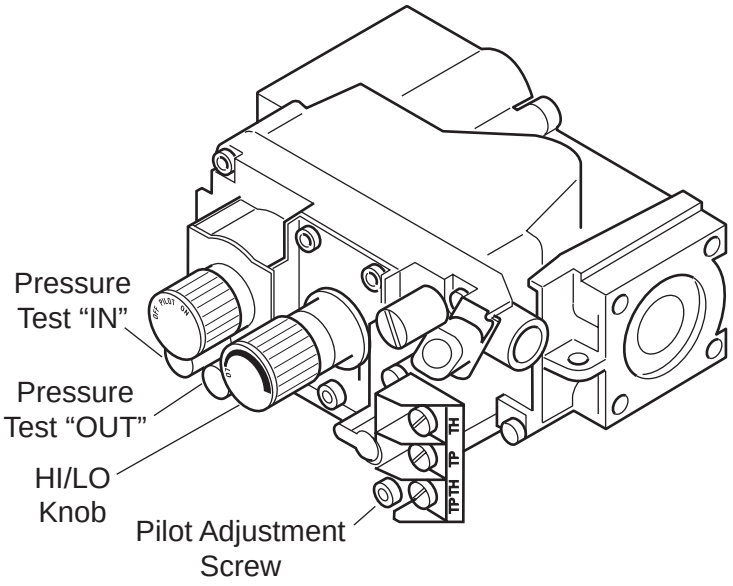


Figure 25 - Gas Pressure Check at Gas Valve

WARNING

Do not use open flame to check for gas leaks.

ELECTRICAL WIRING

This fireplace will work without any electrical supply. Electricity is only needed to operate the blower and the light located behind the logs inside the firebox.

NOTE: If installed in mobile home, fireplace must be bolted securely to floor.

WARNING

Electrical connections should only be performed by a qualified, licensed electrician. Main power must be off when connecting to main electrical power supply or performing service. All wiring shall be in compliance with all local, city, and state codes. The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the *National Electrical Code ANSI/ NFPA 70 (latest edition)* and *Canadian Electrical Code, CSA C22.1.*

CAUTION

Label all wires before disconnecting when servicing controls. Wiring errors can cause improper and dangerous operation.

Verify proper operation after servicing.

REMOTE WALL SWITCH INSTALLATION

REMOTE WALL MOUNTED SWITCH

A remote wall switch and up to fifteen (15) feet of 18 Ga. wire may be used with this appliance. Attach the wall switch in a junction box at the desired location on the wall. *See Figure 26*. Do not extend beyond the wall switch wire length provided.

NOTE: **Extended lengths of wire may cause the fireplace not to function properly. Longer length of wire is permitted if the wire is made out of larger gauge (diameter) wire. Always check with local code.**

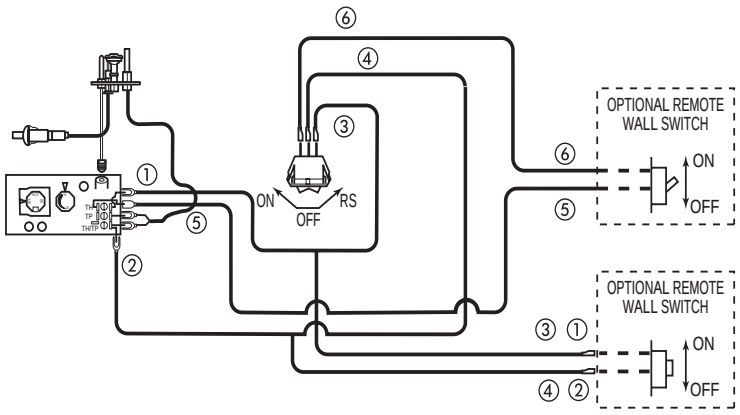


Figure 26 - Wiring Diagram for Wall Switch

WARNING

Do not connect wall switch of heater to a 110V circuit.

CAUTION

Electrical connections should only be performed by a qualified, licensed electrician. Main power supply must be turned off before connecting fans to the main electrical power supply or performing service.

OPTIONAL FAN/BLOWER SYSTEM

IMPORTANT: Always check local building codes. This installation must comply with local regulations as well as the National Electric Code.

WIRING

1. Before installing the blower, wire the receptacle into an electrical circuit. This should be done before framing the fireplace. Wire with minimum 60ºC wire in accordance with prevailing codes.
2. Remove the external junction box cover by removing the screw from the right side of the outside firebox wall. Junction box was installed at the factory.
3. The junction box cover has a factory installed "romex" style strain relief connector. After connecting the wires, route the wire leads through this connector. Refer to the wiring diagram in *Figure 27a.*

WARNING

Before installing the blower, turn off the fireplace and allow to cool. Only a qualified service person should service and repair the fireplace. A qualified service person should connect and disconnect the fireplace to gas supply. Follow all local codes.

BEFORE INSTALLING BLOWER

1. ***Always turn off the gas supply and allow the unit to cool down before proceeding.***
2. Clean the inside of the firebox (wall and floor), where the blower and wires will be installed. Make sure the firebox wall and floor are clean and dry before mounting the blower.
   NOTE: It is very important to arrange the blower wires and wire assembly so that wires do not come in contact with blower blades or firebox.

INSTALLING BLOWERS

1. Remove screen rod assemblies by lifting rod and pushing back and down to release rod from the three hooks located behind the face of the fireplace on the right, left, and middle.
2. Remove the plate located in front of the glass at the bottom.
3. Rotate the access doors on the right and left side of the glass toward the glass.
4. Remove glass frame by releasing the three latches located at the top of the firebox. Tilt glass away from the unit, lift glass frame up and away from the unit. *See Fig. 32.*
5. Remove logs.
6. Remove hearth brick, wall brick and rear brick. **NOTE: Remove brackets that secure wall brick.**

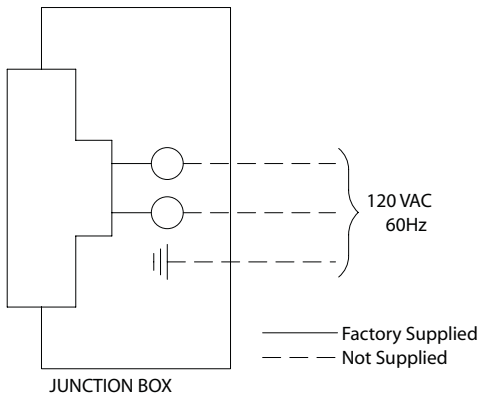


Figure 27 - Junction Box Wiring Diagram

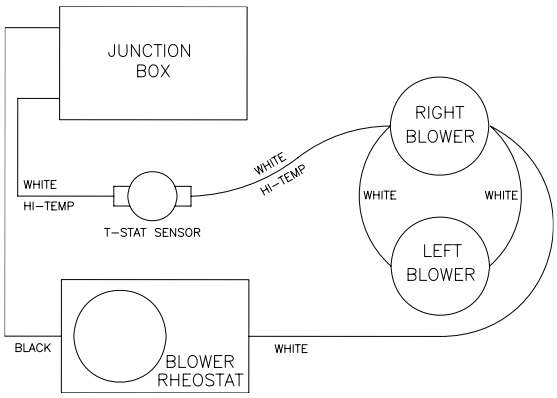


Figure 27a - Blower Wiring Diagram

7. Remove the access covers on the right and left side walls of the firebox toward the front by unfastening the screws. **NOTE: The access covers are not identical.** *See Figure 28*
8. Two screws are already mounted to each cover which would be utilized to mount the blower to the plate. Unfasten the two screws and mount the blower bracket assemblies. *See Figure 30.*
9. Consult blower wiring diagram and start the assembly. It is helpful to wire the right blower, the speed control, the fan limit switch, and the power cord first. Then plug in the power cord to the junction box and secure the right cover plate/ blower assembly to the side of the firebox. *See Figure 27 & 27a*
10. Assemble the wire clips provided with the blower kit to the right and left sides of the fireplace through existing holes on right and left.
11. Run the wire harness down the right and snap wires into the clips assembled in #10. Run the two wires along the glass track, on the floor of the unit, in front of the firebox
12. Snap the fan limit switch behind the clip already assembled to the side of the firebox on the front right hand side. *See Figure 29.*
13. Secure the left access plate/blower assembly to the left side of the firebox. Run the two wires mentioned earlier up the left firebox wall and snap wires into clip assembled in #10 on the outer shell wall. Make the connection to the left blower. Replace the refractory and hearth refractory (pull away from burner toward the front).
14. Replace side panels attached to the glass frame assembly with the louvered side panels provided with the blower kit by unfastening the four nuts for each cover door. Use three metal clip screws provided with kit to secure the wire assembly in the front beneath the access cover. *See Figure 31.*
15. Replace logs (*See pgs. 31-32*)
16. Replace the glass.
17. Replace the front plate below the glass frame. **NOTE: The front plate hides the wire harness in the front.**

WARNING Failure to replace the access cover with the one provided with the blower kit, and then running the blower, will cause excessive temperatures and could cause a fire, property damage and/or loss of life.

WARNING Electrical Grounding Instructions: This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three prong receptacle.

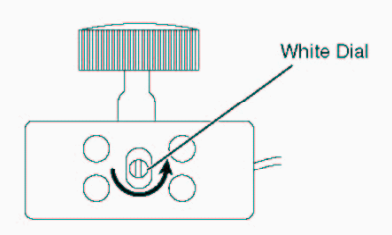


Figure 27b - Location of White Dial on Speed Control

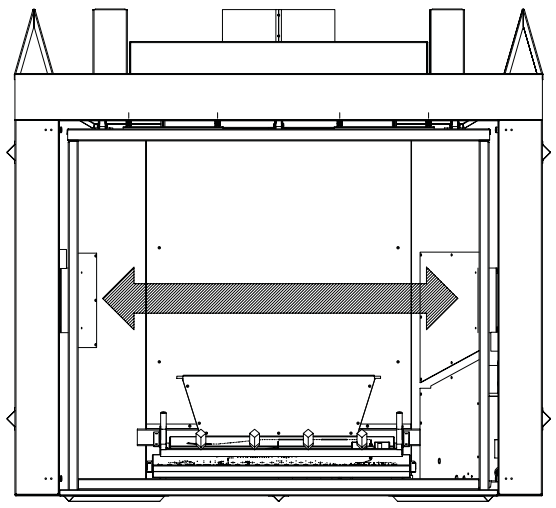


Figure 28 - Blower Access Plates

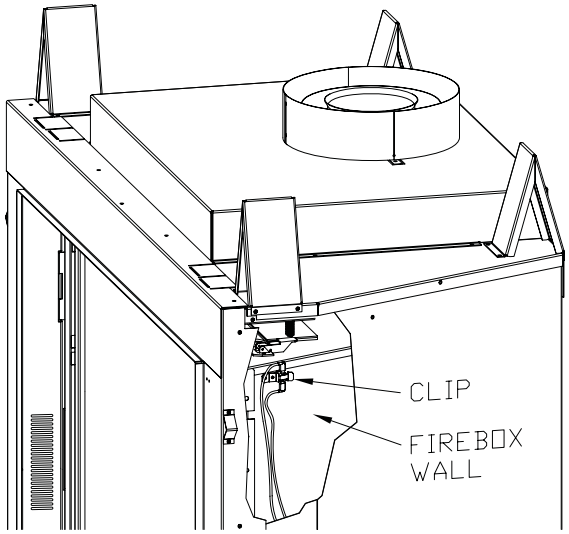


Figure 29 - Blower Access Plates

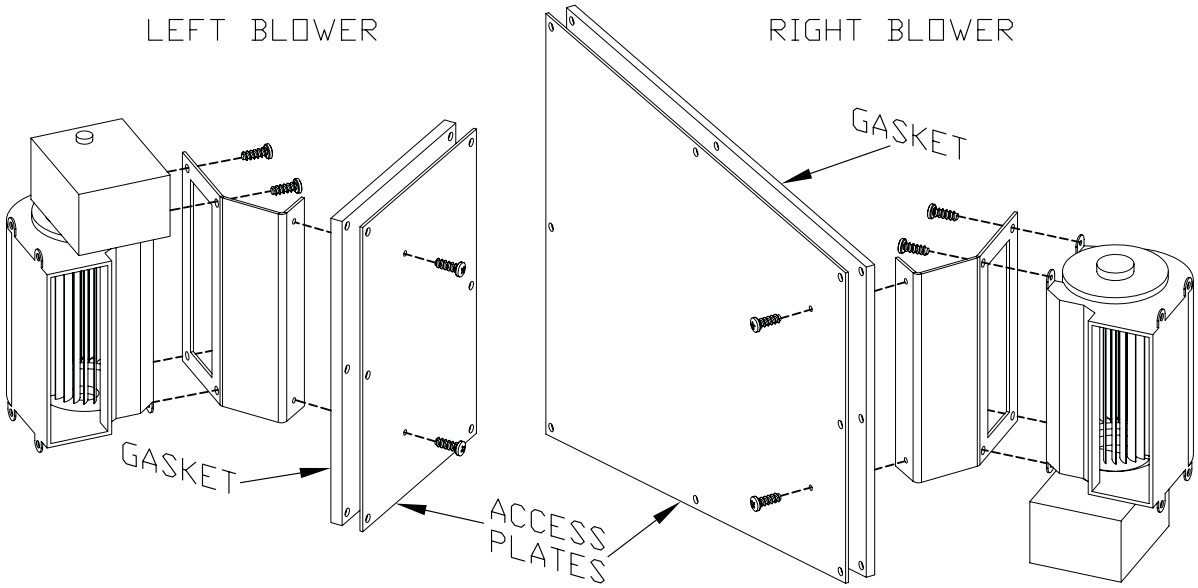


Figure 30 - Assembling Blowers to Access Plates.

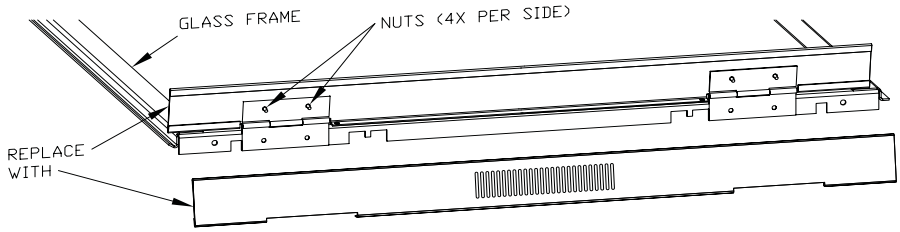


Figure 31 - Replacing Side Panels

GLASS FRAME REMOVAL

1. Remove the plate located in front of the glass at the bottom.
2. Remove rod provided for screen assembly located beneath the cover plate.
3. Rotate the access doors on the right and left side of the glass toward the glass.
4. Remove glass frame by releasing the three latches located at the top of the firebox. Tilt glass away from the unit, lift glass frame up and away from the unit. *Figure 32.*

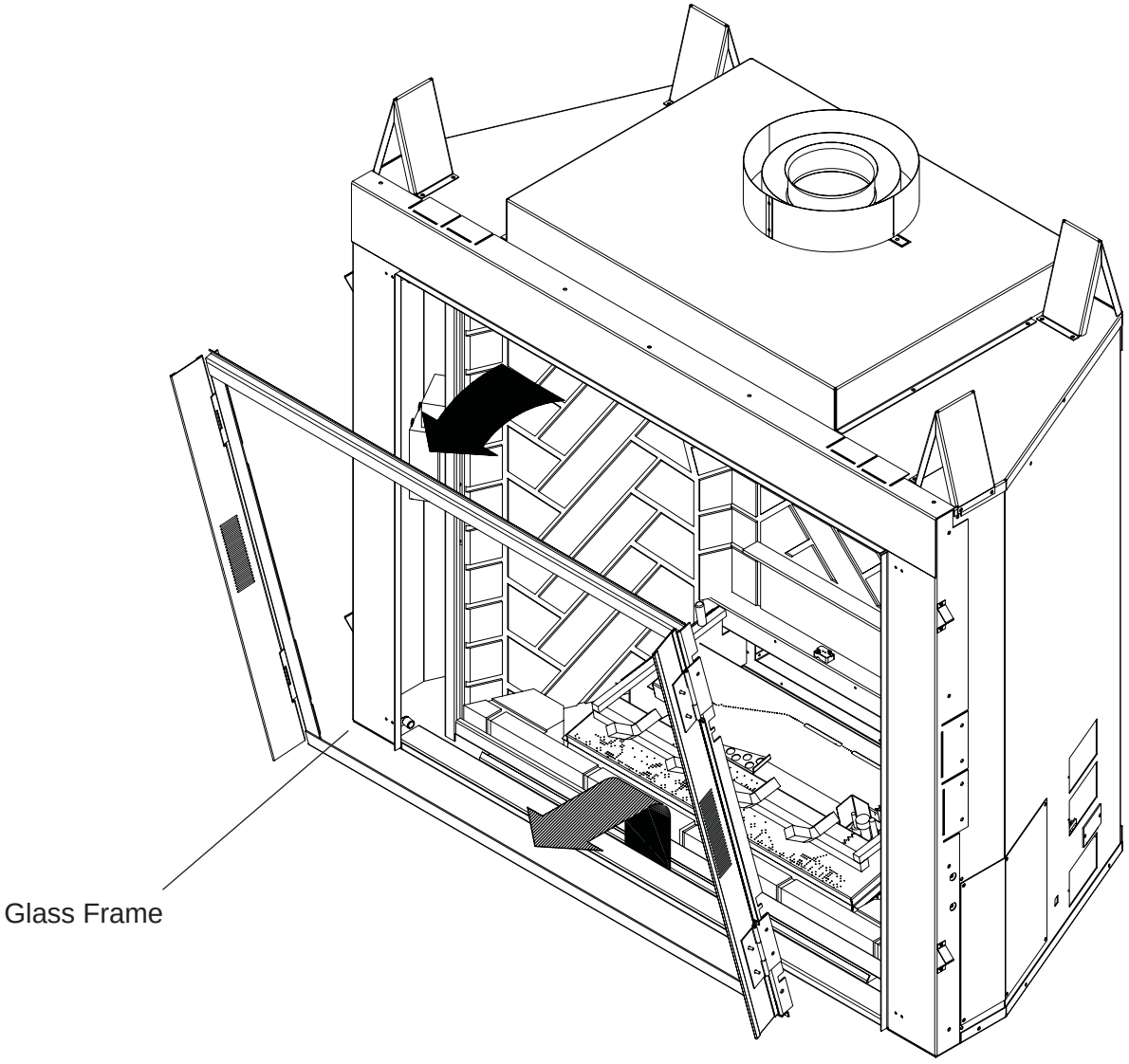


Figure 32 - Removing Glass Frame

CAUTION

Each clamp has a quick spring force. When reinstalling clamps, keep fingers clear.

FINAL INSTALLATION

BRICK, LIGHT BULB, AND LENS PLACEMENT

1. Remove the trapezoidal light shroud located at the back of the firebox by unfastening the three screws.
2. Disassemble the trapezoidal light shroud by unfastening the four screws which secure the front to the back. Set lens with the orange painted surface toward the bottom. Center the lens right to left. Reassemble the front to the back and set the side.
3. Place the right side panel by sliding it at an angle to clear the grate. Set the panel straight up and bring forward until it comes in contact with the reverse bend located at the front of the firebox. Use one of the brackets and screws provided to secure the panel in place.
4. Place the rear lower panel by setting it over the channel behind the light socket. Make sure the grout line lines up with the one on the side.
5. **NOTE: Have the left panel bracket and screw handy before installing the rear upper panel in place.** Place the rear upper panel in place by resting it over the rear lower panel and sliding it behind the right side panel. While holding the rear upper panel in place, slide the left panel at an angle to clear the grate. Set the left side panel straight up and release the rear upper panel. Secure the left side panel in place using the second bracket and screw provided in the kit.
6. Place the front hearth brick simultaneously and pull toward the front away from the burner. This is critical for balancing air flow around the front burner.
7. Install the halogen light bulb provided with the unit (inside the log set). Do not touch light bulb directly with fingers.
8. Replace the trapezoidal light shroud removed in step #1 by sliding it over the light bulb and sockets. Be careful not to damage the light bulb. Align the holes on the deflector with the hole on the rear channel and secure in place.

ROCK WOOL PLACEMENT

1. Place rock wool on the front burner to provide glowing embers. For best results, pull the rock wool apart into dime size pieces and place on top of burner. Also place the same size ember over the carry over parts on the rear burner. **Do NOT place embers over open slots on the rear burner.**
2. Distribute one layer of rock wool to cover the burner. S*ee Figure 34 and next page.*
3. Place the logs on the burner. See *Log Placement* below. Light unit and after 15 minutes, check burner flame and glow. See *Burner Flame*, page 40.

WARNING

Do not use the entire bag of rock wool to cover the burner. This could cause the flame to burn poorly and may lead to sooting.

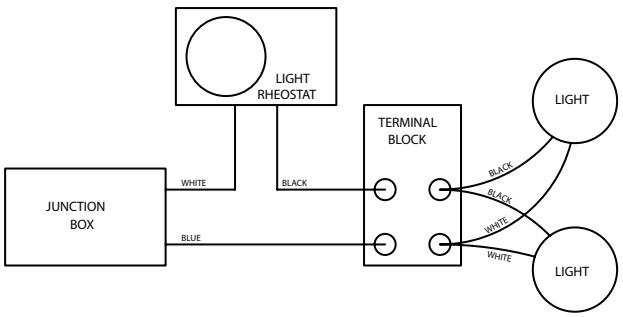


Figure 33 - Light wiring diagram

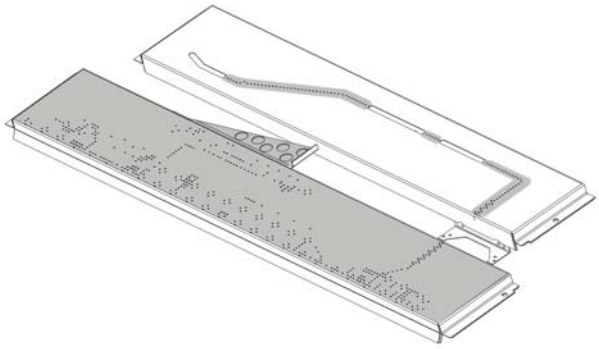


Figure 34 - Rockwool placement

LOG PLACEMENT

1. Place the rear log over the grate toward the back by positioning the holes over the large pins located at the right and left. When the log is in place, the back surface of the log will come in contact with the light trapezoid deflector.
2. Place the log over the pilot by holding the log with the wide end toward the back and the branch toward the front and left. Set the log by having the protrusion on the bottom of the log rest to the left side of the grate bar and behind the pilot shield. Also set the notch located at the bottom of the left branch over the second right tong on the grate. Make sure that the log is positioned properly so it is not rocking. **NOTE: When the log is in place, it should not touch the pilot but will be resting over the pilot shield.**

Burner Grate Assembly

Step 1

Step 2

Step 3

3. Place the left front log in place by setting it over the left side of the rear log (match protrusion to indentation), the hearth brick and over the left tong on the grate. Match the notch at the bottom of the branch with the tong on the grate.
4. Place the middle log over the two burners by setting the flat surface over the burner and matching the indentation located underneath the branch over the protrusion located at V-branch on the left front log placed in step #3. Rotate the right end of the log clockwise until it comes in contact with the reverse bend on the bracket located between the front and rear burner.

FINAL INSTALLATION

5. Place the upper left log at angle over the rear and the middle logs by matching the indentation on the bottom of the log with protrusion on the rear log. Set the pointed end of the log over the flat surface of the middle log. When this log is in place the pointed end will come in contact with the back of the pilot log placed in step #2.
6. Place the right upper log over the pilot log and the hearth brick by matching the indentation on the bottom of the log with the protrusion on the pilot log.
7. Place the upper right rear log over the rear log and the right upper log by matching the indentations located at the bottom with the protrusions on the rear log and the right upper log.

Step 4

Step 5

Step 6

Step 7

8. Replace glass in reverse order of instructions on page 29.
9. Slide the rings of the screen provided inside the unit above the grate over the rod. Make sure the screen handles are toward the center.
10. Hook the rod screen assemblies over the three hooks located behind the face in front of the glass. *Note: The opening of the hooks are toward the back.*

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING

If you do not follow these instruction exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance is equipped with a pilot which must be lit with built-in piezo ignitor while following these instructions exactly.

B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Turn off all gas to the appliance.
- Open windows.
- Do not attempt to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to push in, or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part of it has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

LIGHTING PILOT FOR THE FIRST TIME

INITIAL LIGHTING

Purge air from the supply line as follows:

- Open main shutoff valve.
- Unscrew main pressure test point.
- Leave inlet test screw open until gas comes in.
- When gas is flowing, tighten inlet screw immediately.

WARNING

Never use an open flame to check for gas leak.

LEAK TESTING

1. Follow the pipe from the gas supply line connection to the gas valve. Check connection for leaks with soap and water mixture.
2. Next check for gas leaks at the burner with soap and water mixture.
3. Check the pilot for gas leaks with soap and water mixture.

LIGHTING PILOT FOR THE FIRST TIME

APPROVED LEAK TESTING METHOD

You may check for gas leaks with the following methods only:

- Soap and water solution
- An approved leak testing spray
- Electronic sniffer

DANGER

Never check for gas leak with open flame!

WARNING

If using a soap and water solution to test for leaks, DO NOT spray solution onto control body.

NOTE: Remove any excessive pipe compound from the connections. Excessive pipe compound can set off electronic sniffers.

Check for gas leaks in each of the following locations:

- Pipe from the gas supply line connection to the gas valve
- Burner connections
- Pilot
- Each joint or connection
- Field made joints / gas shutoff valve
- Factory made joints
- All joints on valve and control body

LIGHTING PILOT

WARNING

The control has an interlock device that does not allow the lighting of the fireplace up to the moment the safety device of the flame has not interrupted the gas flow. After that period of time (when the magnet is closed), it is possible to start the lighting operation.

The gas control knob is designed to be operated by hand. DO NOT use any tools during this operation. Damaged knobs may result in serious injury.

1. Depress and turn knob counterclockwise to pilot position.
2. Depress fully and hold pilot gas knob. Depress piezo igniter as many times as needed to ignite pilot. Keep knob fully depressed for a few seconds. Release and check that pilot continues to burn.

If the pilot does not stay lit, repeat steps 1 and 2.

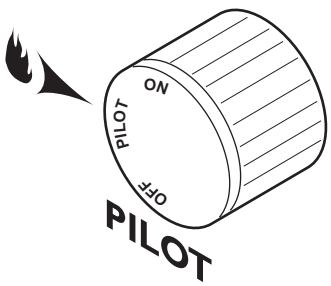


Figure 35 - Pilot Position

Continued on next page

LIGHTING BURNER

MAIN BURNER SWITCH

The "ON/OFF/RS" switch for the main burner can be found behind door of the fireplace. This switch allows you to turn on and to turn off the main burner without using the gas valve knob. Make sure the button is in the "ON" position to light the main burner. *See Figure 36.*

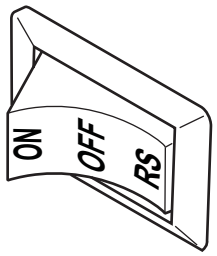


Figure 36 - On/Off/RS Switch

LIGHTING THE BURNER

Depress and turn the knob counterclockwise ↶ to the "ON" position. *See Figure 37.* It will take less than four (4) seconds for the burner to ignite.

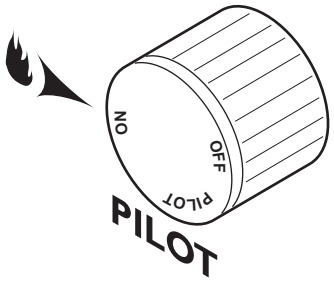


Figure 37- On Position

PILOT POSITION

Depress and turn knob to pilot position to keep burner off while maintaining the pilot light. *See Figure 38.*

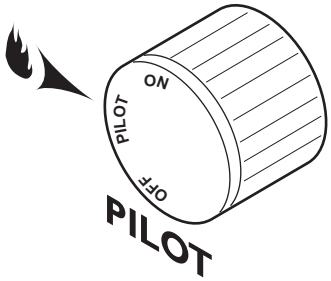


Figure 38 - Pilot Position

TO TURN OFF GAS

Depress and turn knob clockwise ↷ to "OFF" position. *See Figure 39.*

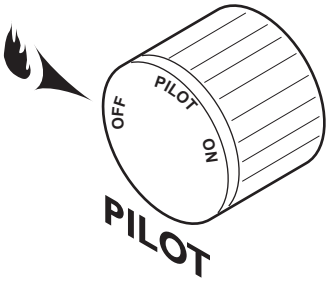


Figure 39 - Off Position

WARNING

Turn off gas before servicing fireplace. It is recommended that a qualified service technician perform these check-ups at the beginning of each heating season

BURNER, PILOT AND CONTROL COMPARTMENT

Keep the control compartment, logs, and burner areas surrounding the logs clean by vacuuming or brushing at least twice a year. Make sure the burner porting, pilot air opening and burner air opening are free of obstructions at all times.

PILOT FLAME

The flames from the pilot should be visually checked as soon as the heater is installed and periodically during normal operation. **The pilot flame must always be present when the fireplace is in operation.** *See Figure 40.* The pilot flame has three distinct flames, one engulfing the thermopile, one engulfing the thermocouple, and the other reaching to the main burner.

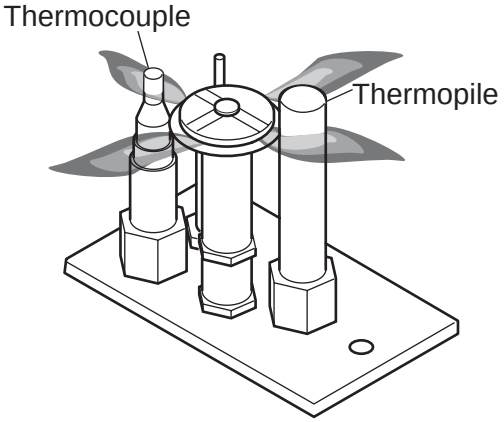


Figure 40 - Pilot Flame

BURNER

Inspect area around the injector. Remove any lint or foreign material with a brush or vacuum.

BURNER FLAME

The flames from the burner should be visually checked as soon as the heater is installed and periodically during normal operation. In normal operation, at full rate, and after operating for about 15 to 30 minutes, the flame should be yellow and slightly taller than the rear log. *See Figure 41.*

If the flame is blue and only in the center, turn off unit and let cool. After unit is cool, remove logs and check to make sure the back holes in the burner are not covered with rock wool. If the back holes are clear, add more rock wool to the center of the burner. Replace logs.

NOTE: The type of installation, vent system configuration, and wind effects may cause the flame patterns to vary.

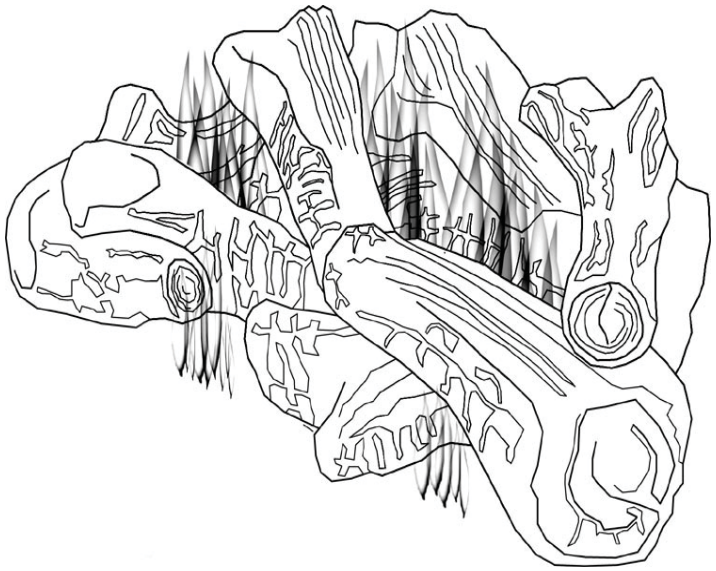


Figure 41 - Burner Flame Appearance

VENT SYSTEM

The fireplace and venting system should be inspected before initial use and at least annually by a qualified field service person. Inspect the external vent cap on a regular basis to make sure that no debris is interfering with the airflow. Inspect entire venting system to ensure proper function.

GLASS DOOR

Thoroughly clean the inside of the glass door after using the fireplace for ten hours. Periodically clean the glass door as necessary.

When cleaning the glass, remember:

- **Do not remove the glass when hot.** Allow glass to cool before removal.
- NEVER use abrasive materials.
- Keep children and pets a safe distance away.
- Never operate the fireplace without the glass door properly secured.
- Never operate the fireplace if the glass is broken.
- Replace any glass that is chipped, cracked, or broken. Replacement glass door assemblies MUST be supplied by the fireplace manufacturer – **No substitute materials may be used.**
- Handle glass door with care to avoid striking or scratching it on hard objects.

To clean glass door, follow "Glass Removal" procedure outlined in the *Final Installation* section. Film deposit on the inside of the glass should be cleaned off using a nontoxic, non-corrosive, non-abrasive, mild-cleaning solution. Simply apply an adequate amount to the glass and wipe off with a damp cloth. After all maintenance has been completed, re-install glass door.

LOGS

Leave logs installed in the fireplace for cleaning. Vacuum surface of the logs with a brush attachment. If logs must be removed for cleaning, handle carefully by holding gently at each end. Gloves are recommended to prevent skin irritation from ceramic fibers. If skin becomes irritated, wash gently with soap and water. Vacuum surface of logs with brush attachment or brush logs with a soft bristle brush (i.e. clean, dry paintbrush). To place logs back in the fireplace, see "Log Placement" found in the *Final Installation* section.

NOTE: **Do not use fluids to clean ceramic fiber logs.**

ROCK WOOL

Replace or add rock wool as required following installation instructions in the *Final Installation* section of this manual.

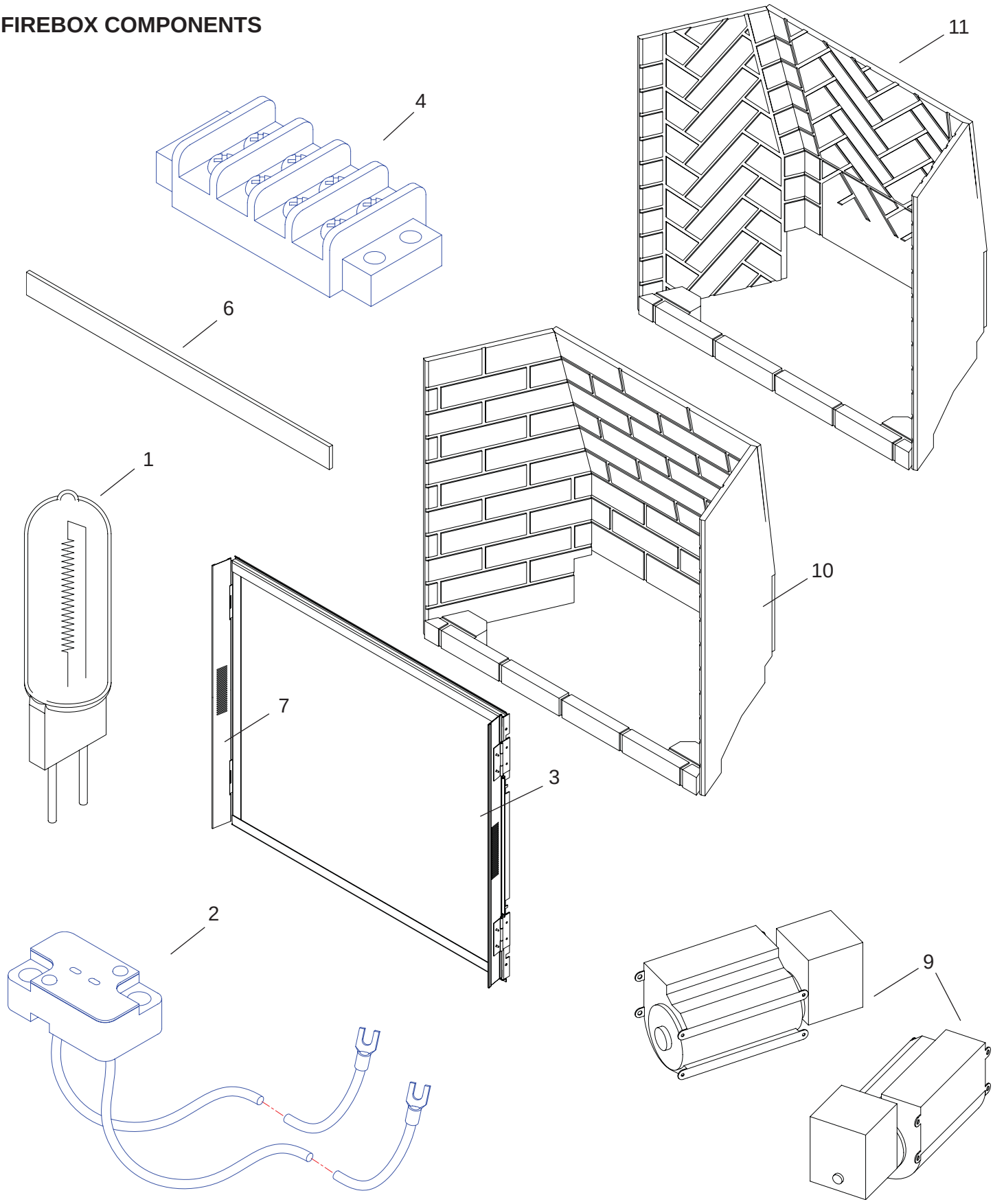
STANDING PILOT IGNITION

SYMPTOM	POSSIBLE CAUSE	ACTION
1. Spark ignitor will not light pilot after repeated triggering of piezo.	A. Wire disconnected.	A. Open door and check to make sure wire is connected to ignitor.
	B. Defective ignitor.	B. Check for spark at electrode and pilot. If no spark and electrode wire is properly connected, replace pilot assembly.
	C. No gas or low gas pressure.	C. Check remote/manual shut off valve from fireplace. Low pressure can be caused by bent lines, restricted lines, low pressure line pressure. Consult with plumber or gas supplier.
	D. No Propane/LPG in tank	D. Check Propane/LPG tank. Refill tank.
2. Pilot will not stay lit after carefully following lighting instructions.	A. Defective thermocouple	A. Check that thermocouple flame impinges on thermocouple. Clean and/or adjust pilot for maximum flame impingement. Ensure that the thermocouple connection at the gas valve is fully inserted and tight. Disconnect the thermocouple from the valve, place one millivolt lead wire on the tip of the thermocouple and the other meter lead wire on the thermocouple copper lead. Start the pilot and hold the valve knob in. If the millivolt reading is less than 15 mV, replace pilot assembly.
	B. Defective valve	B. If thermocouple is producing more than 15 mV, replace faulty valve.
. Pilot burning, valve knob turned to “ON,” switch is turned to “ON” or “RS,” but burner will not ignite.	A. Defective switch, wall switch, remote control or wire	A. Check switch and wire for proper connection. Place jumper wires across terminals of switch. If burner comes on, replace defective switch.If the switch is OK, repeat the same procedure on remote control If burner comes on, replace remote control. Place jumper wire across wire at gas valves (terminals marked TH and TP/TH). If burner comes on, wires are faulty or connections are bad. Replace wire.
	B. Pilot flame too small	B. If pilot flame is not close enough to the thermopile, adjust pilot flame.
	C. Defective or malfunctioning thermopile	C. Check thermopile wire connections to make sure all are tight and that the thermopile is fully inserted into pilot assembly. Check thermopile with a millivolt meter. Connect leads to TP and TP/TH terminals on the control valve. If meter reading is below 325 mV, replace pilot assembly.
	D. Defective valve	D. Turn valve knob to “On” and switch to “ON.” Take a reading at the thermopile leads (TP & TP/TH) on the valve. If the meter reads greater than 175 mV and the burner does not light, replace defective valve.

STANDING PILOT IGNITION

SYMPTOM	POSSIBLE CAUSE	ACTION
4. Frequent pilot outage problem.	A. Pilot flame may be too high or too low, causing pilot safety to drop out	A. Clean and adjust the pilot flame for maximum flame impingement on thermocouple.
5. The pilot and main burner extinguish while in operation	A. Inner vent pipe leaking exhaust gases back into system	A. Check for flue product leak. Replace defective pipe section.
	B. Horizontal vent improperly pitched	B. Check horizontal-venting piping is running upward 1/4" per foot. Do not run the pipe level or downward.
	C. Improper vent cap installation	C. Check for proper installation and freedom from debris or blockage.
6. Glass Soots	A. Flame impingement on logs	A. Install log set per the instructions Inspect the injector and air intake area. Make sure this area does not have any blockage from debris and clean. Check gas supply.
7. Flame burn blue and lifts off burner (ghosting)	A. Insufficient oxygen being supplied	A. Ensure that the vent cap is installed properly and free of debris. Ensure that the vent system joints are tight and have no leaks. Ensure that no debris has been blocking the inner air intake at the bottom back of the combustion chamber. Ensure that the glass is properly secure and latch.

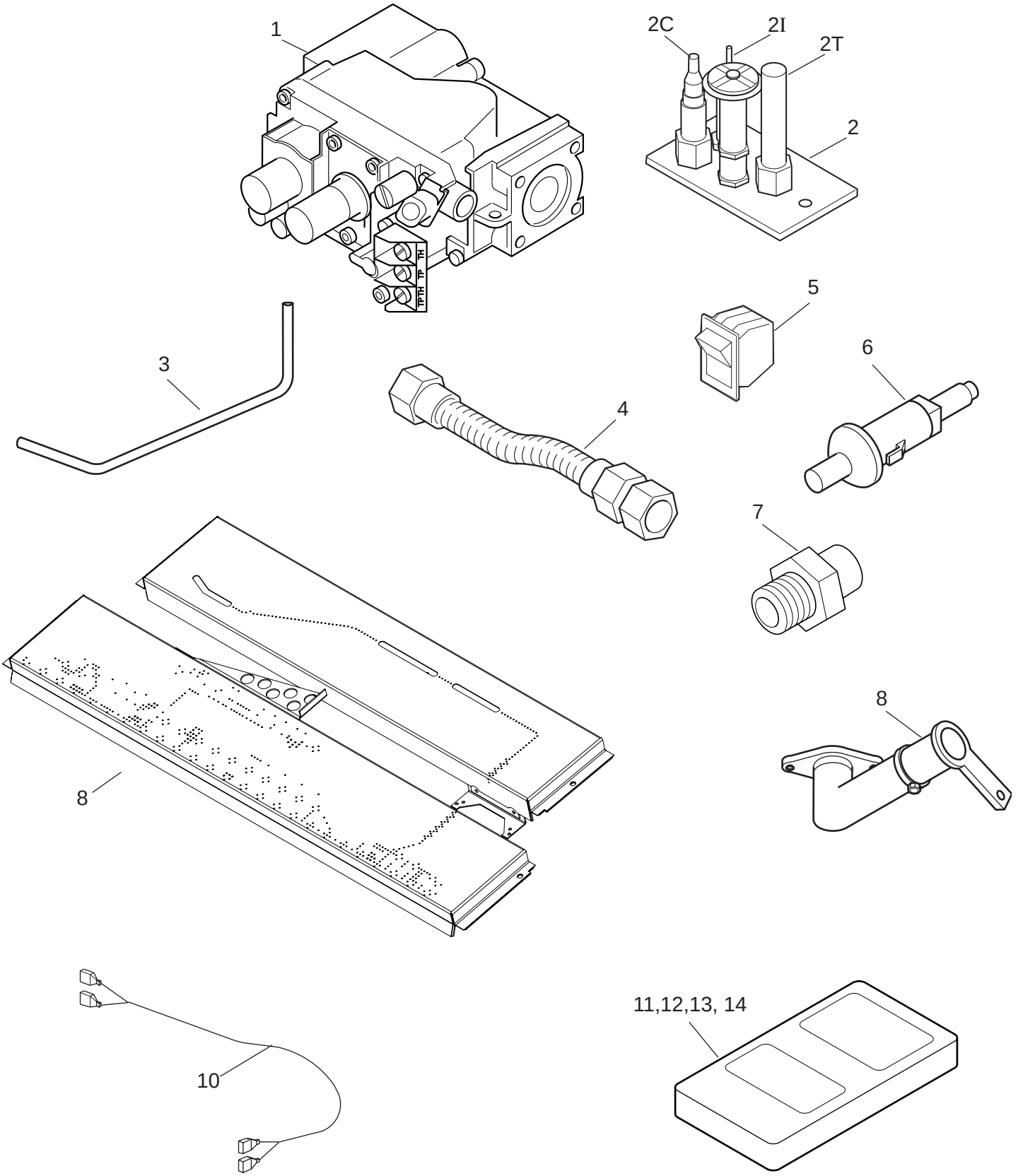
FIREBOX COMPONENTS



FIREBOX COMPONENTS

	Description	Qty	KHLDV500
Standard Features			
1	Bulb	2	73D0020
2	Bulb Socket	2	73D0019
3	Glass Frame Assembly	1	73D1002
4	Junction Block	1	73D0018
5	Junction Box Assembly (not shown)	1	26D2128K
6	Light Lens	1	73D0022
7	Panel, Access, Clean	2	73D0029K
7	Panel, Access, w/Louvers (used with blower)	2	73D0027K
Accessories/Field Installed Options			
9	T-stat Blower with Speed Control	1	BLOTKHL
10	Cottage Clay Firebrick Set	1	FBKHLDV500CC
10	Cottage Red Firebrick Set	1	FBKHLDV500CR
11	Vintage Brown Herringbone Firebrick Set	1	FBKHLDV500VB

STANDING PILOT — MILLIVOLT CONTROL

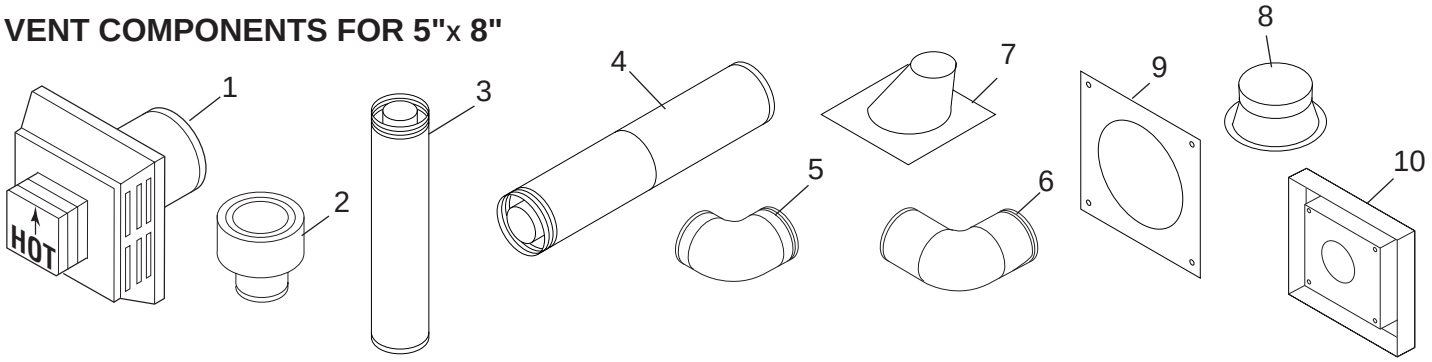


STANDING PILOT – MILLIVOLT CONTROL

Item	Description	Qty	KHLDV400NV	KHLDV400PV	KHLDV500NV	KHLDV500PV
1	Gas Valve Assembly	1	37D0117	37D0118	37D0117	37D0118
2	Pilot Assembly	1	20H2048	20H2049	20H2048	20H2049
2C	Replacement Thermocouple	1	37D1067	37D1067	37D1067	37D1067
2I	Replacement Igniter and Wire	1	37D1069	37D1069	37D1069	37D1069
2T	Replacement Thermopile	1	37D1068	37D1068	37D1068	37D1068
3	Burner Tube	1	74D0049K	74D0049K	74D0049K	74D0049K
4	Flexhose with Shutoff Valve	1	69D0030	69D0030	69D0030	69D0030
5	Rocker Switch	1	41D0048	41D0048	41D0048	41D0048
6	Piezo Igniter	1	14D0503	14D0503	14D0503	14D0503
7	Rear Injector	1	58D0102	58D0052	57D0679	57D0680
7	Front Injector	1	57D0612	58D0056	56D3059	62D3005
8	Rear Burner Assembly	1	73D1004	73D1005	73D0045	73D0045
8	Front Burner Assembly	1	73D1004	73D1005	73D0046	73D0046
9	Venturi	1	45D0600	45D0600	45D0600	45D0600
10	Wire Assembly	1	44D0500	44D0500	44D0500	44D0500
10	Wire Assembly	1	44D0501	44D0501	44D0501	44D0501
Accessories						
11	On/Off Remote Control	1	RCB/RCMT/WMTD	RCB/RCMT/WMTD	RCB/RCMT/WMTD	RCB/RCMT/WMTD
12	Thermostatic Remote Control	1	RST/RCT/RCSTEB RCSITE/WWTD	RST/RCT/RCSTEB RCSITE/WWTD	RST/RCT/RCSTEB RCSITE/WWTD	RST/RCT/RCSTEB RCSITE/WWTD
13	Wall Switch Kit	1	MVWS	MVWS	MVWS	MVWS
14	Wall Thermostat Kit	1	WT	WT	WT	WT
15	Forged Andiron 13"	1	FAI13	FAI13	FAI13	FAI13
15	Cast Iron 12-1/2"	1	CAI121/2	CAI121/2	CAI121/2	CAI121/2
Conversion Kit (Not Shown)						
	400 Conversion NG to LPG	1	KHL400CKP	—		
	400 Conversion LPG to NG	1	—	KHL400CKN		
	500 Conversion NG to LPG	1			KHL500CKP	—
	500 Conversion LPG to NG	1			—	KHL500CKN

ILLUSTRATED PARTS LIST

VENT COMPONENTS FOR 5"x 8"



Item	Qty/ Box	Description	Simpson Duravent	Selkirk
			Monessen P/N	
1	1	Horizontal High Wind Termination Cap	1285	5DT-HC
1	1	Horizontal Termination Cap with Built-In Vinyl Siding Standoff, Heat Deflector, Firestop and Adjustable Pipe 7" to 11"	*BHR8TK*	
1	1	Horizontal Termination Cap Built-In Vinyl Siding Standoff, Heat Deflector, Firestop, 90° Elbow, Adjustable Pipe 7" to 11", and 12" Section of Pipe.	*KHLBHS8TK*	
1	1	Horizontal Termination Cap with Built-In Vinyl Siding Standoff, Heat Deflector, Firestop and Flexible Pipe 24" to 48"	*BHSF8TK*	
2	1	Vertical Termination	*	5DT-VC
2	1	Extended Vertical Termination	1283	—
2	1	High Wind Vertical Termination	1291	—
3	4	6” Pipe Length	1208	5DT-06
3	4	9” Pipe Length	1207	5DT-09
3	4	12” Pipe Length	1206	5DT-12
3	4	24” Pipe Length	1204	5DT-24
3	4	36” Pipe Length	1203	5DT-36
3	4	48” Pipe Length	1202	5DT-48
4	4	11” To 14 5/8” Pipe, Adjustable	1211	5DT-AJ
4	4	17” To 24” Pipe, Adjustable	1217	N/A
5	4	45° Elbow	1245	5DT-EL45
5	4	45° Swivel Elbow	1245G	5DT-EL45
6	4	90° Elbow	1290	5DT-EL90S
6	4	90° Swivel Elbow	1290G	5DT-EL90S
7	6	Flashing, 0/12 To 6/12 Roof Pitch	1243	5DT-AF6
8	6	Storm Collar	1253	5DT-SC
9	4	Firestop	1263	5DT-FS
10	1	Vinyl Siding Standoff	1250	5DT-VS

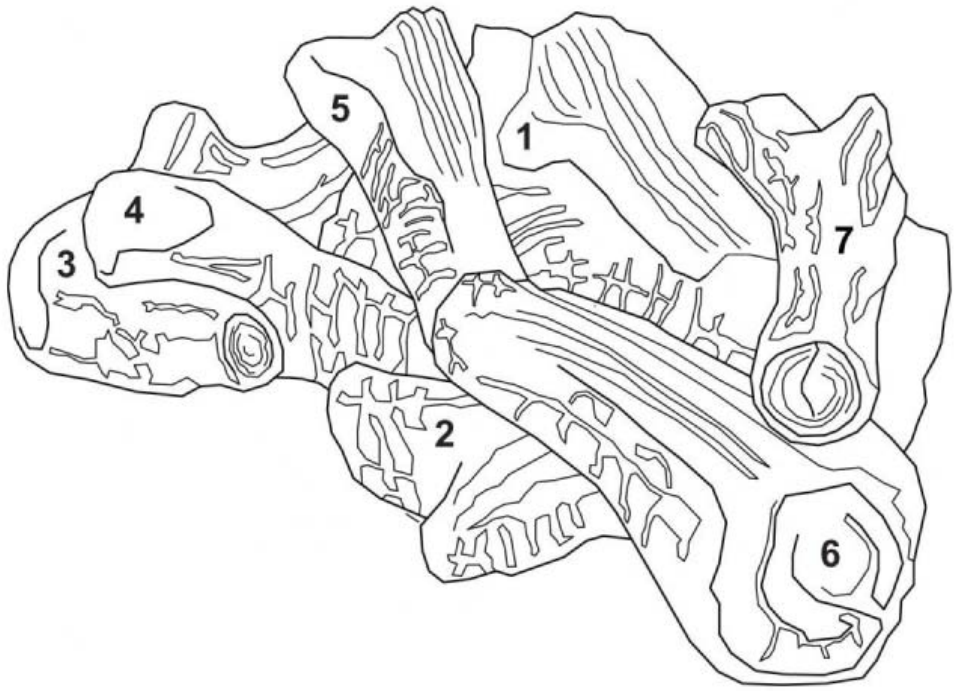
***SIMPSON DURAVENT 1280 VERTICAL CAP CANNOT BE USED WITH THIS FIREPLACE.**

For more information about, or instructions for, the venting components referenced above, please contact the component manufaturer:

Selkirk Corporation: www. selkirkcorp.com or 800-992-8368
Simpson Duravent: www. duravent.com or 800-835-4429

LOGS

Item	Description	Qty	KHLDV400	KHLDV500
1	Log #1	1	73D0532	73D0134
2	Log #2	1	73D0533	73D0135
3	Log #3	1	73D0534	73D0136
4	Log #4	1	73D0535	73D0137
5	Log #5	1	73D0536	73D0138
6	Log #6	1	73D0537	73D0139
7	Log #7	1	73D0538	73D0140



MASSACHUSETTS RESIDENTS ONLY: PLEASE READ AND FOLLOW THESE SPECIAL REQUIREMENTS

NOTE REGARDING VENTED PRODUCTS

This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts.

Any residence with a direct vent product must have a CO detector installed in the residence.

Installation of the fireplace or vented gas log in the State of Massachusetts requires the damper to be permanently removed or welded in the fully open position.

In addition, a naturally vented gas log may not be installed in a bedroom or bathroom in the State of Massachusetts.

Flex line installation must not exceed 36 inches and must have a T shutoff valve.

NOTE REGARDING VENT FREE PRODUCTS

This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts.

In addition, vent free products may not be installed in a bedroom or bathroom regardless of size or type in the State of Massachusetts.

Flex line installation must not exceed 36 inches and must have a T shutoff valve.

CARBON MONOXIDE DETECTOR REQUIREMENTS

(2) Revise 10.8.3 by adding the following additional requirements:

(a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

1. INSTALLATION OF CARBON MONOXIDE DETECTORS. At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gasfitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors

    a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

    b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

2. APPROVED CARBON MONOXIDE DETECTORS. Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.
3. SIGNAGE. A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, **"GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS."**
4. INSPECTION. The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

(b) EXEMPTIONS: The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

1. The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

(c) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED. When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

1. Detailed instructions for the installation of the venting system design or the venting system components; and
2. A complete parts list for the venting system design or venting system.

(d) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED. When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems," the following requirements shall be satisfied by the manufacturer:

1. The identification of each "special venting system" shall include either the listing of the website, phone number or manufacturer's address where the venting system installation instructions can be obtained; and
2. The "special venting systems" shall be Product Approved by the Board, and the instructions provided with that system shall include a parts list and detailed installation instructions.

(e) A copy of all installation instructions for the Product Approved side wall horizontally vented gas fueled equipment and all the venting instructions, parts lists, and/or all design instructions for the venting system shall remain with the appliance or equipment at the completion of the installation.

NOTES

NOTES

LIMITED LIFETIME WARRANTY POLICY

LIFETIME WARRANTY

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, Heat Exchanger, Grate and Stainless Steel Burners.

FIVE YEAR WARRANTY

The following components are warranted five (5) years to the original owner, subject of proof of purchase: Ceramic Fiber Logs.

BASIC WARRANTY

Monessen Hearth Systems (MHS) warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of two years from date of installation. After installation, if any of the components manufactured by MHS in the appliance are found to be defective in materials or workmanship, MHS will, at its option, replace or repair the defective components at no charge to the original owner. MHS will also pay for reasonable labor costs incurred in replacing or repairing such components for a period of two years from date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Lifetime Warranty will be void if the appliance in not installed by a qualified installer in accordance with the installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damage by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. MHS does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. It states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations of exclusions may not apply to you. You may also have additional rights not covered in the Limited Lifetime Warranty.

MHS reserves the right to investigate any and all the claims against the Limited Lifetime Warranty and decide upon method of settlement.

For information about this warranty, contact:

Technical Services
Monessen Hearth Systems
149 Cleveland Drive
Paris, Kentucky 40361